Radio Test Report

FCC ID: 2AWNK-AX18

Original Grant

Report No.	:	TB-FCC180232
Applicant	:	Shenzhen Apeman Innovations Technology Co.,Ltd
Equipment Under Test (EUT)		
EUT Name	:	AX1800 Dual Band Wi-Fi 6 Smart Router
Model No.	:	AX18
Series Model No.	:	AX1801, AX1802, AX1803, AX1804, AX1805, AX18A, AX18B, AX18C, AX18D, AX18E
Brand Name	:	----
Sample ID	:	20210415-09-1#& 20210415-09-2#
Receipt Date	:	2021-05-08
Test Date	:	2021-05-08 to 2021-05-19
Issue Date	:	2021-05-20
Standards	:	FCC Part 15, Subpart C 15.247
Test Method	:	ANSI C63.10: 2013 KDB 558074 D01 15.247 Meas Guidance v05r02 KDB 662911 D01 Multiple Transmitter Output v02r01
Conclusions	:	**PASS** In the configuration tested, the EUT complied with the standards specified above.

Test/Witness Engineer	:	Rebeca
Engineer Supervisor	:	Ivan Su
Engineer Manager	:	Ray Lai

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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Contents

Revision History

Report No.	Version	Description	Issued Date
TB-FCC180232	Rev.01	Initial issue of report	2021-05-20

1. General Information about EUT

1.1 Client Information

Applicant	:	Shenzhen Apeman Innovations Technology Co.,Ltd
Address	:	1808, Heng Lu E Times Building, No. 159, North Pingji Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen, Guangdong, China
Manufacturer	:	Shenzhen Apeman Innovations Technology Co.,Ltd
Address	:	1808, Heng Lu E Times Building, No. 159, North Pingji Road, Hehua Community, Pinghu Street, Longgang District, Shenzhen, Guangdong, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	AX1800 Dual Band Wi-Fi 6 Smart Router	
Models No.	:	AX18, AX1801, AX1802, AX1803, AX1804, AX1805, AX18A, AX18B, AX18C, AX18D, AX18E	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40)/ax(HE40): 2422MHz~2452MHz
		Number of Channel:	802.11b/g/n(HT20)/ax(HE20):11 channels **see note(3)** 802.11n(HT40)/ax(HE40): 7 channels **see note(3)**
		Antenna Gain:	Please see Note(3)
		Modulation Type:	802.11b: DSSS (DQPSK, DBPSK, CCK) 802.11g: OFDM (BPSK, QPSK,16QAM, 64QAM) 802.11n: OFDM (BPSK, QPSK,16QAM, 64QAM) 802.11ax: OFDMA (BPSK, QPSK,16QAM, 64QAM, 256QAM, 1024QAM)
		Data Rate:	2.4GHz: Up to 573.5Mbps (2*2 40MHz)
Power Rating	:	Adapter(TPQ-233A120100UW01): Input: 100-240V~, 50/60Hz, 0.4A Output: DC 12V 1A	
Software Version	:	A	
Hardware Version	:	N/A	
Remark	:	The antenna gain and adapter provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.	

Note:

(1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

(2) Channel List:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	**2412**	05	2432	09	2452
02	2417	**06**	**2437**	10	2457
03	2422	07	2442	**11**	**2462**
04	2427	08	2447		
Note: CH 01~CH 11 for 802.11b/g/n(HT20)/ax(HE20) **CH 03~CH 09 for 802.11n(HT40)/ /ax(HE40)**					

(3) Antenna information

Mode	TX Antenna (s)	Remark
802.11b	2	ANT. 1+ ANT. 2
802.11g	2	ANT. 1+ ANT. 2
802.11n(HT20)	2	ANT. 1+ ANT. 2
802.11n(HT40)	2	ANT. 1+ ANT. 2
802.11n(HE20)	2	ANT. 1+ ANT. 2
802.11n(HE40)	2	ANT. 1+ ANT. 2

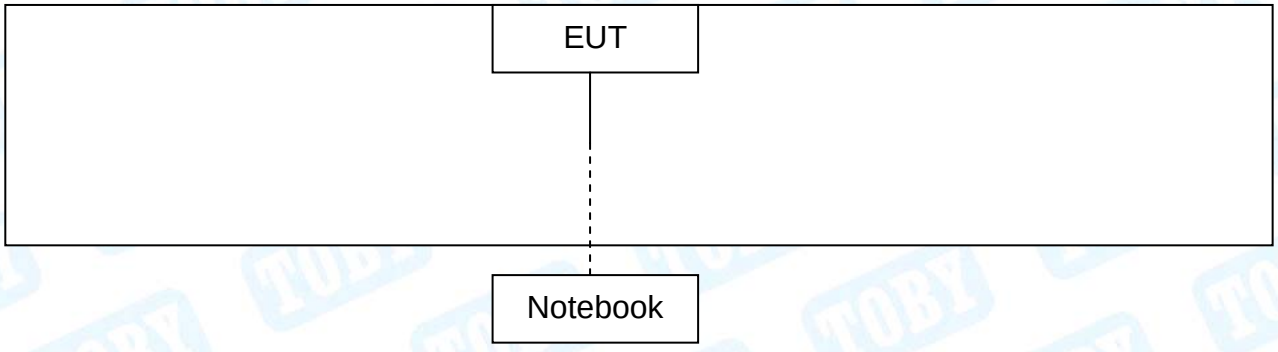
Antenna	Brand	Model Name	Type	Antenna Gain(dBi)
ANT. 1	N/A	N/A	Dipole	5
ANT. 2	N/A	N/A	Dipole	5

Note:

For MIMO mode: Directional Gain=ANT. Gain+10*LOG(N_{ANT}) =8.01dBi

2.4G working with 802.11b/g/n has MIMO mode.

1.3 Block Diagram Showing the Configuration of System Tested



1.4 Description of Support Units

Name	Model	S/N	Manufacturer	Used "√"
Notebook	161301-CN	15987/00203076	Xiaomi	√

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Emission Test	
Final Test Mode	**Description**
Mode 1	Charging with TX b Mode Channel 01
For Radiated and RF Conducted Test	
Final Test Mode	**Description**
Mode 2	TX Mode b Mode Channel 01/06/11
Mode 3	TX Mode g Mode Channel 01/06/11
Mode 4	TX Mode n(HT20) Mode Channel 01/06/11
Mode 5	TX Mode n(HT40) Mode Channel 03/06/09
Mode 6	TX Mode ax(HE20) Mode Channel 01/06/11
Mode 7	TX Mode ax(HE40) Mode Channel 03/06/09

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, Middle, lowest available channels, and the worst case data rate as follows:

802.11b Mode: CCK
802.11g Mode: OFDM
802.11n (HT20) Mode: MCS 0
802.11n (HT40) Mode: MCS 0
802.11ax (HE20) Mode: MCS 0
802.11ax (HE40) Mode: MCS 0

(2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.

(3) The EUT is considered a mobile device; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN.

Test Software: QATool_Dbg				
	Test Mode: Continuously transmitting			
Mode	**Data Rate**	**Channel**	**Parameters**	
			Antenna 1	**Antenna 2**
802.11b	CCK/ 1Mbps	01	18	18
	CCK/ 1Mbps	06	18	18
	CCK/ 1Mbps	11	18	18
802.11g	OFDM/ 6Mbps	01	13	13
	OFDM/ 6Mbps	06	13	13
	OFDM/ 6Mbps	11	13	13
802.11n(HT20)	MCS 0	01	11	11
	MCS 0	06	11	11
	MCS 0	11	11	11
802.11n(HT40)	MCS 0	03	10	10
	MCS 0	06	10	10
	MCS 0	09	10	10
802.11n(HE20)	MCS 0	01	10	10
	MCS 0	06	10	10
	MCS 0	11	10	10
802.11n(HE40)	MCS 0	03	10	10
	MCS 0	06	10	10
	MCS 0	09	10	10

1.7 Measurement Uncertainty

The reported uncertainty of measurement y ± 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 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz 150kHz to 30MHz	±3.50 dB ±3.10 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	±4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	±4.50 dB
Radiated Emission	Level Accuracy: Above 1000MHz	±4.20 dB

1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F.,Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025：2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

IC Registration No.: (11950A)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.

2. Test Summary

FCC Part 15, Subpart C 15.247				
Standard Section	**Test Item**	**Test Sample(s)**	**Judgment**	**Remark**
15.203	Antenna Requirement	20210415-09-2#	PASS	N/A
15.207(a)	Conducted Emission	20210415-09-1#	PASS	N/A
15.247(d)	Band-Edge & Unwanted Emissions into Restricted Frequency	20210415-09-2#	PASS	N/A
15.247(a)(2)	6dB Bandwidth	20210415-09-2#	PASS	N/A
15.247(b)(3)	Conducted Max. Output Power	20210415-09-2#	PASS	N/A
15.247(e)	Power Spectral Density	20210415-09-2#	PASS	N/A
15.209(a)	Transmitter Radiated Spurious	20210415-09-1#	PASS	N/A
15.205	Restricted Bands	20210415-09-2#	PASS	N/A
Note: "/" for no requirement for this test item. N/A is an abbreviation for Not Applicable.				

3. Test Software

Test Item	Test Software	Manufacturer	Version No.
Conducted Emission	EZ-EMC	EZ	CDI-03A2
Radiation Emission	EZ-EMC	EZ	FA-03A2RE
RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0

4. Test Equipment

Conducted Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 06, 2020	Jul. 05, 2021
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 06, 2020	Jul. 05, 2021
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 06, 2020	Jul. 05, 2021
LISN	Rohde & Schwarz	ENV216	101131	Jul. 06, 2020	Jul. 05, 2021
Radiation Emission Test					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	FSV40-N	102197	Jul. 06, 2020	Jul. 05, 2021
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.01, 2020	Feb. 28, 2022
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Mar.01, 2020	Feb. 28, 2022
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 07, 2020	Jul. 06, 2021
Pre-amplifier	Sonoma	310N	185903	Feb. 25, 2021	Feb. 24, 2022
Pre-amplifier	HP	8449B	3008A00849	Feb. 25, 2021	Feb. 24, 2022
Pre-amplifier	SKET	LNPA_1840G-50	SK201904032	Feb. 25, 2021	Feb. 24, 2022
Cable	HUBER+SUHNER	100	SUCOFLEX	Feb. 25, 2021	Feb. 24, 2022
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Last Cal.**	**Cal. Due Date**
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 06, 2020	Jul. 05, 2021
Spectrum Analyzer	Rohde & Schwarz	ESPI	100010/007	Jul. 06, 2020	Jul. 05, 2021
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 11, 2020	Sep. 10, 2021
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 11, 2020	Sep. 10, 2021
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 11, 2020	Sep. 10, 2021
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 11, 2020	Sep. 10, 2021
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 11, 2020	Sep. 10, 2021

5. Conducted Emission Test

5.1 Test Standard and Limit

5.1.1Test Standard

FCC Part 15.207

5.1.2 Test Limit

Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dBμV)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

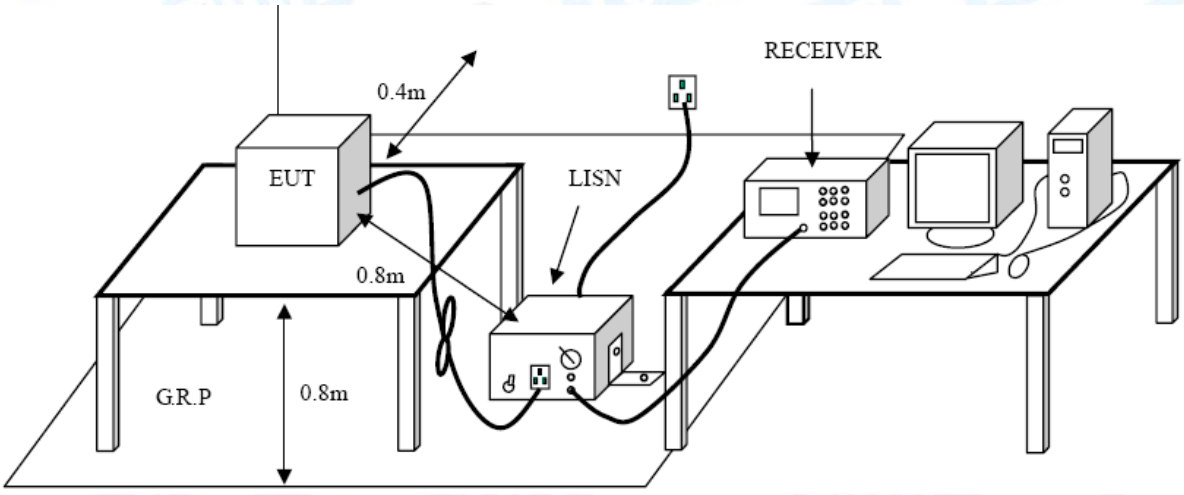
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.2 Test Setup



5.3 Test Procedure

(1) The EUT was placed 0.8 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.

(2) 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.

(3)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.

(4)LISN at least 80 cm from nearest part of EUT chassis.

(5)The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

5.4 Deviation From Test Standard

No deviation

5.5 EUT Operating Mode

Please refer to the description of test mode.

5.6 Test Data

Please refer to the Attachment A.

6. Radiated and Conducted Unwanted emissions

6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 15.209

FCC Part 15.247(d)

6.1.2 Test Limit

General field strength limits at frequencies above 30 MHz

Frequency (MHz)	Field strength (μV/m at 3 m)	Measurement Distance (meters)
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

General field strength limits at frequencies Above 1000MHz

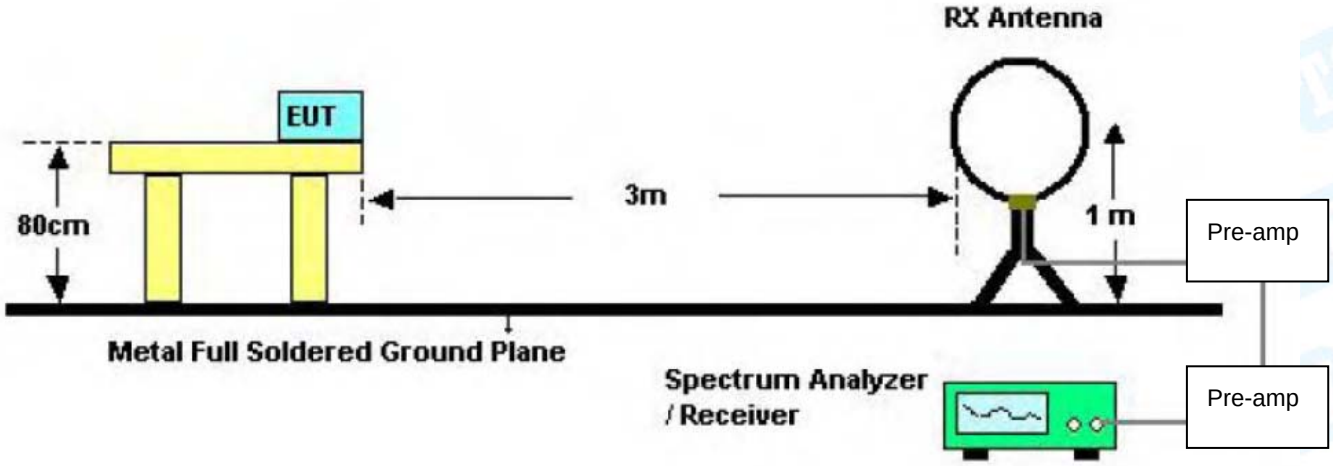
Frequency (MHz)	Distance of 3m (dBuV/m)	
	Peak	Average
Above 1000	74	54
Note: (1) The tighter limit applies at the band edges. (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)		

General field strength limits at frequencies Below 30MHz

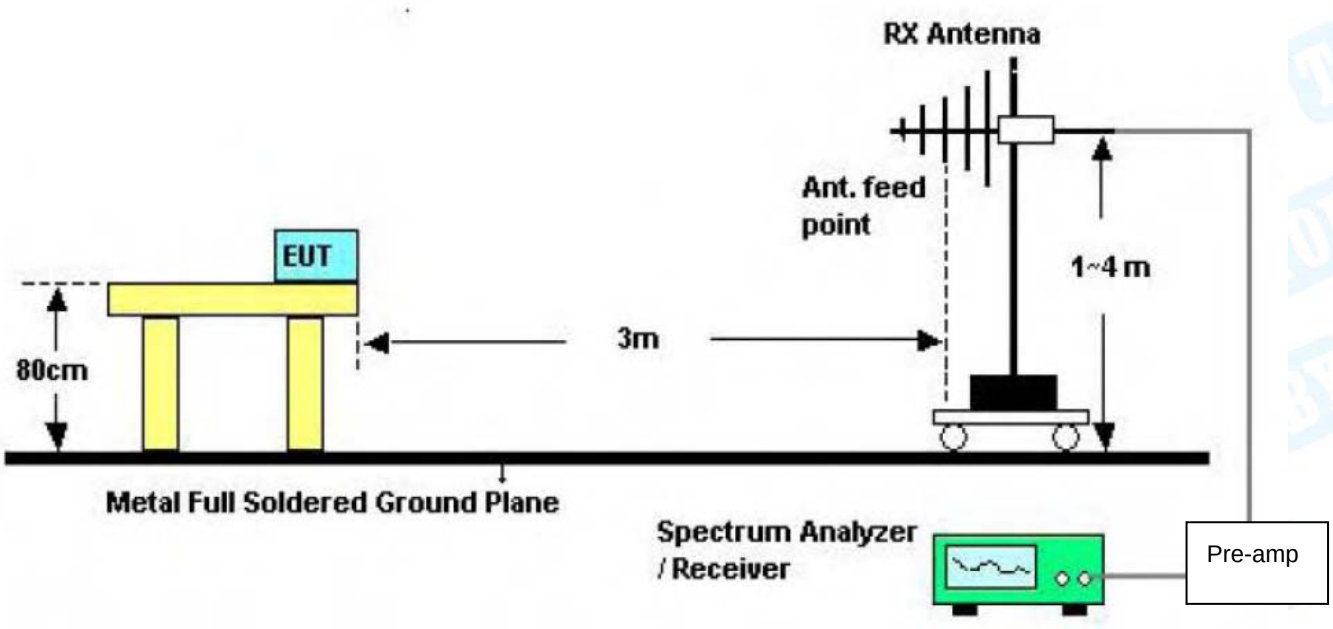
Frequency (MHz)	Field Strength (μA/m)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	6.37/F (F in kHz)	2400/F(KHz)	300
0.490~1.705	63.7/F (F in kHz)	24000/F(KHz)	30
1.705~30.0	0.08	30	30
Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.			

6.2 Test Setup

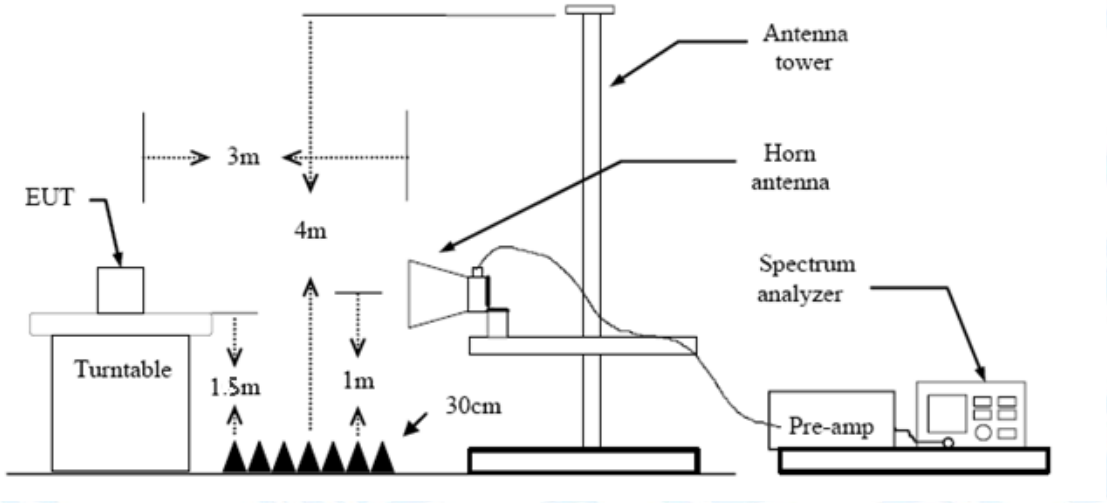
Radiated measurement



Below 30MHz Test Setup

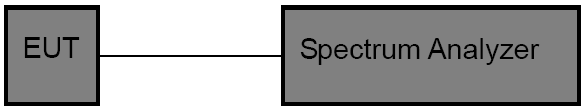


Below 1000MHz Test Setup



Above 1GHz Test Setup

Conducted measurement



6.3 Test Procedure

Radiated measurement

(1) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(2) Measurements at frequency Below 1GHz. The EUT was placed on a rotating 0.8m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical Antenna 1+2re set to make measurement.

(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

(5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional

QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

(6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.

(7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

(8) For the actual test configuration, please see the test setup photo.

Conducted measurement

Testing shall be done on a laboratory bench in a shielded room or in another suitable location. The active antenna port of the unlicensed wireless device shall be connected to the spectrum analyzer after applying appropriate precautions to protect the instrumentation. If a second antenna port is available, then it shall be tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port. (See also 7.8.8, 11.12.2, and 12.1.2.)
For the actual test configuration, please see the test setup photo.

6.4 Deviation From Test Standard

No deviation

6.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.6 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Please refer to the Attachment B.

7. Restricted Bands Requirement

7.1 Test Standard and Limit

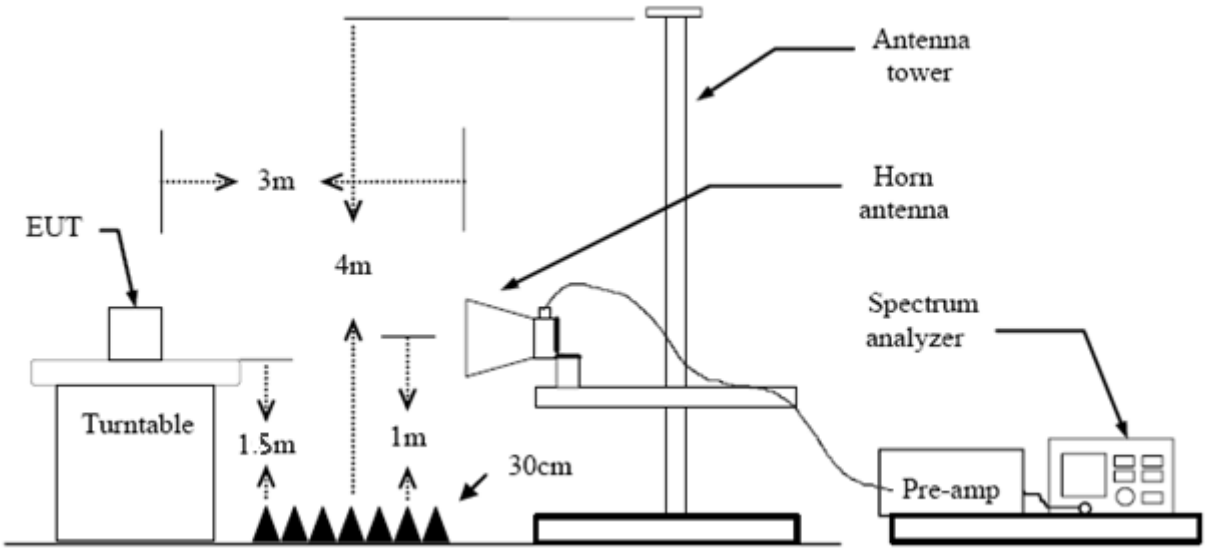
7.1.1 Test Standard

FCC Part 15.209
FCC Part 15.205

7.1.2 Test Limit

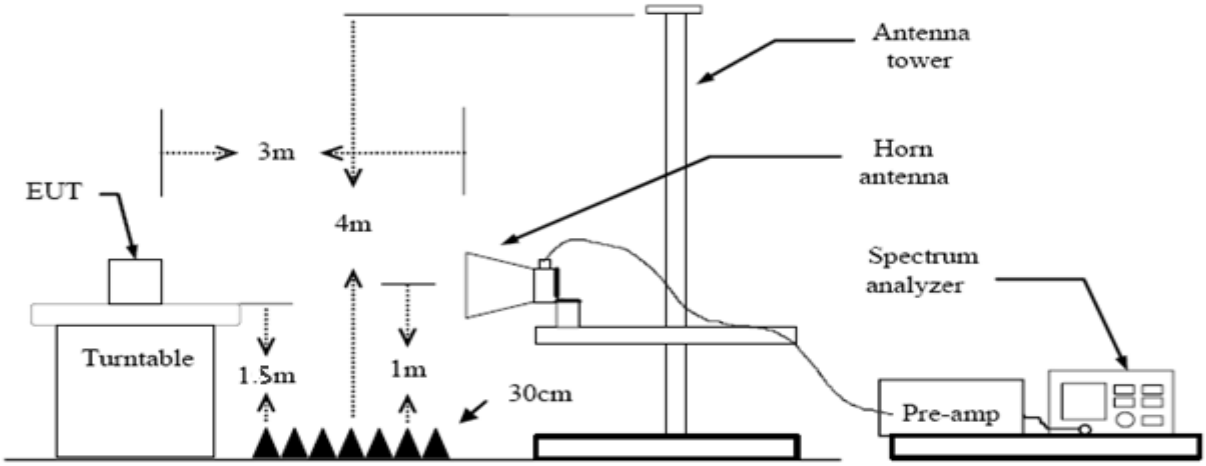
Radiated measurement		
Restricted Frequency Band (MHz)	Distance Meters(at 3m)	
	Peak (dBuV/m)	Average (dBuV/m)
2310 ~2390	74	54
2483.5 ~2500	74	54
Conducted measurement		
	Peak (dBm)see 7.3 e)	Average (dBm) see 7.3 e)
2310 ~2390	-41.20	-21.20
2483.5 ~2500	-41.20	-21.20
Note: According the ANSI C63.10 11.12.2 antenna-port conducted measurements may also be used as an alternative to radiated measurements for determining compliance in the restricted frequency bands requirements. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test forcabinet/case emissions is required.		

7.2 Test Setup

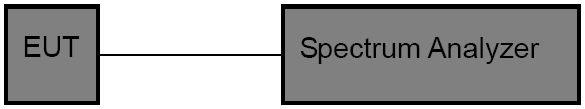


7.2 Test Setup

Radiated measurement



Conducted measurement



7.3 Test Procedure

---Radiated measurement

(1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.

(2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical Antenna 1+2re set to make measurement.

(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

(5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Below 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

(6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.

(7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

(8) For the actual test configuration, please see the test setup photo.

---Conducted measurement

a) Measure the conducted output power (in dBm) using the detector specified by the appropriate
regulatory agency (see 11.12.2.3 through 11.12.2.5 for guidance regarding measurement procedures for determining quasi-peak, peak, and average conducted output power, respectively).

b) Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP (see 11.12.2.6 for guidance on determining the applicable antenna gain).

c) Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies ≤30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies > 1000 MHz).

d) For MIMO devices, measure the power of each chain and sum the EIRP of all chains in linear
terms (i.e., watts and mW).

e) Convert the resultant EIRP to an equivalent electric field strength using the following relationship:

$$E = \text{EIRP} - 20 \log d + 104.8$$

where
E is the electric field strength in dBuV/m
EIRP is the equivalent isotropically radiated power in dBm

d is the specified measurement distance in m

f) Compare the resultant electric field strength level with the applicable regulatory limit.

g) Perform the radiated spurious emission test.

7.4 Deviation From Test Standard

No deviation

7.5 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

7.6 Test Data

Remark: The test uses Radiated measurement.
Please refer to the Attachment C.

8. Bandwidth Test

8.1 Test Standard and Limit

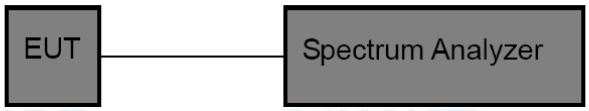
8.1.1 Test Standard

FCC Part 15.247 (a)(2)

8.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5

8.2 Test Setup



8.3 Test Procedure

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- The detector of the spectrum analyzer shall be set to “Sample”. However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or “Max Hold”) may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

8.4 Deviation From Test Standard

No deviation

8.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

8.6 Test Data

Please refer to the Attachment D.

9. Peak Output Power

9.1 Test Standard and Limit

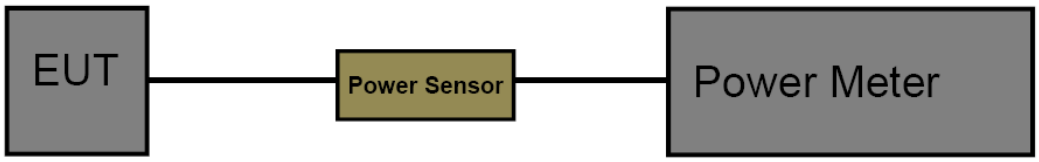
9.1.1 Test Standard

FCC Part 15.247 (b)

9.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Peak Output Power	not exceed 1 W or 30dBm	2400~2483.5

9.2 Test Setup



9.3 Test Procedure

The measurement is according to section 9.1.2 of KDB 558074 D01 v05r02.
The EUT was connected to RF power meter via a broadband power sensor as show the block above. The power sensor video bandwidth is greater than or equal to the DTS bandwidth of the equipment.

9.4 Deviation From Test Standard

No deviation

9.5 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

9.6 Test Data

Please refer to the Attachment E.

10. Power Spectral Density Test

10.1 Test Standard and Limit

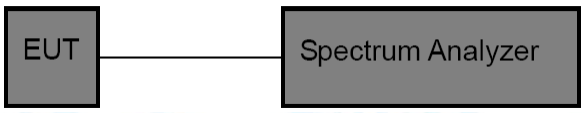
10.1.1 Test Standard

FCC Part 15.247 (e)

10.1.2 Test Limit

Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

10.2 Test Setup



10.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 D01 v05r02.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
(2) Set analyser centre frequency to DTS channel centre frequency.
(3) Set the span to 1.5 times the DTS bandwidth.
(4) Set the RBW to: 3 kHz
(5) Set the VBW to: 10 kHz
(6) Detector: peak
(7) Sweep time: auto
(8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

10.4 Deviation From Test Standard

No deviation

10.5 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

10.6 Test Data

Please refer to the Attachment F.

11. Antenna Requirement

11.1 Standard Requirement

11.1.1 Standard

FCC Part 15.203

11.1.2 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 shall be considered sufficient to comply with the provisions of this Section. 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.

11.2 Deviation From Test Standard

No deviation

11.3 Antenna Connected Construction

The gains of the antenna used for transmitting is 5dBi, and the antenna de-signed with unique connector Antenna 1+2nd no consideration of replacement. Please see the EUT photo for details.

Result

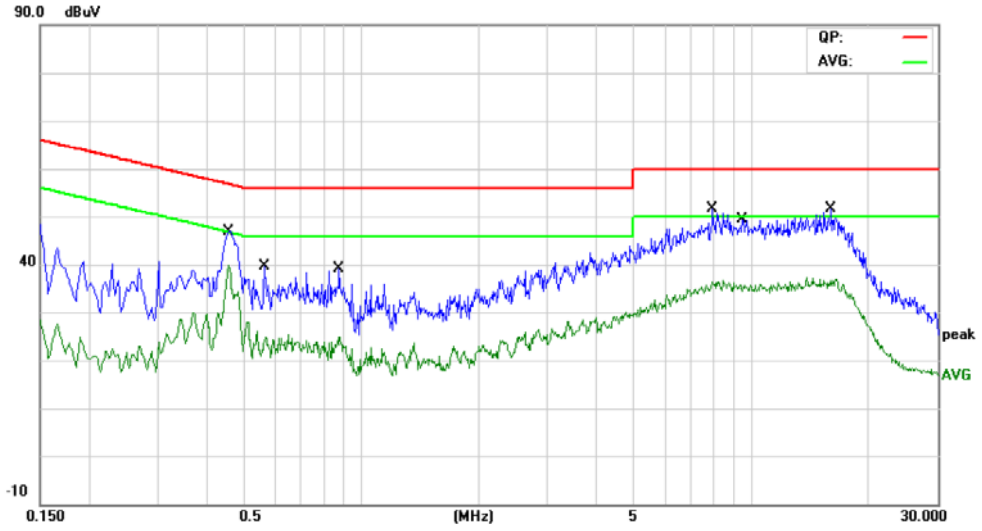
The EUT antenna is a Dipole Antenna. It complies with the standard requirement.

Antenna Type
☐Permanent attached antenna
☒Unique connector antenna
☐Professional installation antenna

Attachment A-- Conducted Emission Test Data

Remark: All channels have been tested and Shows only the worst channels.

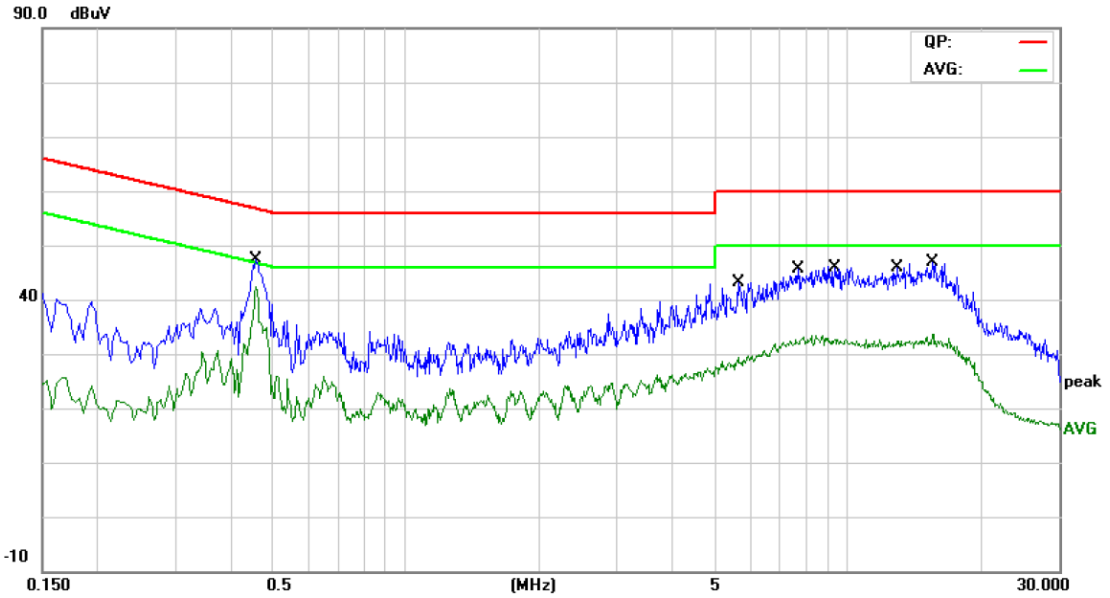
Temperature:	24.6℃	**Relative Humidity:**	42%
Test Voltage:	AC 120V/60Hz		
Terminal:	Line		
Test Mode:	Mode 1 (TX B Mode Channel 01)		
Remark:	Only worst case is reported.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.4580	35.20	9.80	45.00	56.73	-11.73	QP
2	*	0.4580	29.52	9.80	39.32	46.73	-7.41	AVG
3		0.5660	21.54	9.80	31.34	56.00	-24.66	QP
4		0.5660	14.54	9.80	24.34	46.00	-21.66	AVG
5		0.8780	21.79	9.80	31.59	56.00	-24.41	QP
6		0.8780	13.72	9.80	23.52	46.00	-22.48	AVG
7		7.9460	32.83	9.90	42.73	60.00	-17.27	QP
8		7.9460	24.62	9.90	34.52	50.00	-15.48	AVG
9		9.4980	31.93	9.90	41.83	60.00	-18.17	QP
10		9.4980	23.87	9.90	33.77	50.00	-16.23	AVG
11		16.0459	32.58	10.00	42.58	60.00	-17.42	QP
12		16.0459	24.29	10.00	34.29	50.00	-15.71	AVG

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)

Temperature:	24.6℃	**Relative Humidity:**	42%
Test Voltage:	AC 120V/60Hz		
Terminal:	Neutral		
Test Mode:	Mode 1(TX B Mode Channel 01)		
Remark:	Only worst case is reported.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.4580	35.30	9.80	45.10	56.73	-11.63	QP
2	*	0.4580	31.47	9.80	41.27	46.73	-5.46	AVG
3		5.6380	24.54	9.83	34.37	60.00	-25.63	QP
4		5.6380	17.99	9.83	27.82	50.00	-22.18	AVG
5		7.7060	28.47	9.90	38.37	60.00	-21.63	QP
6		7.7060	21.60	9.90	31.50	50.00	-18.50	AVG
7		9.3460	28.46	9.90	38.36	60.00	-21.64	QP
8		9.3460	21.40	9.90	31.30	50.00	-18.70	AVG
9		12.9140	27.89	9.96	37.85	60.00	-22.15	QP
10		12.9140	20.57	9.96	30.53	50.00	-19.47	AVG
11		15.4860	28.55	10.00	38.55	60.00	-21.45	QP
12		15.4860	20.84	10.00	30.84	50.00	-19.16	AVG

Remark:
1. Corr. Factor (dB) = LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) =QuasiPeak/Average (dBuV)-Limit (dBuV)

Attachment B--Unwanted Emission Test Data

---Radiated Unwanted Emissions

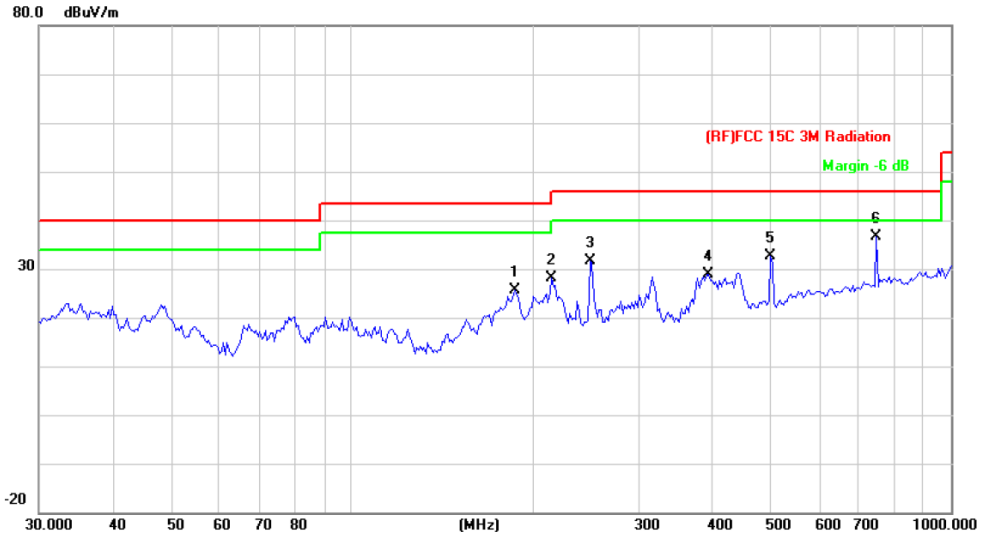
9KHz~30MHz

From 9KHz to 30MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

30MHz~1GHz

Temperature:	23.6℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		
Remark:	Only worst case is reported.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		187.0958	45.47	-19.89	25.58	43.50	-17.92	peak
2		215.2678	47.16	-19.13	28.03	43.50	-15.47	peak
3		249.4250	48.76	-17.25	31.51	46.00	-14.49	peak
4		393.4723	41.41	-12.60	28.81	46.00	-17.19	peak
5		499.4247	43.18	-10.48	32.70	46.00	-13.30	peak
6	*	750.1083	43.16	-6.60	36.56	46.00	-9.44	peak

*:Maximum data x:Over limit !:over margin

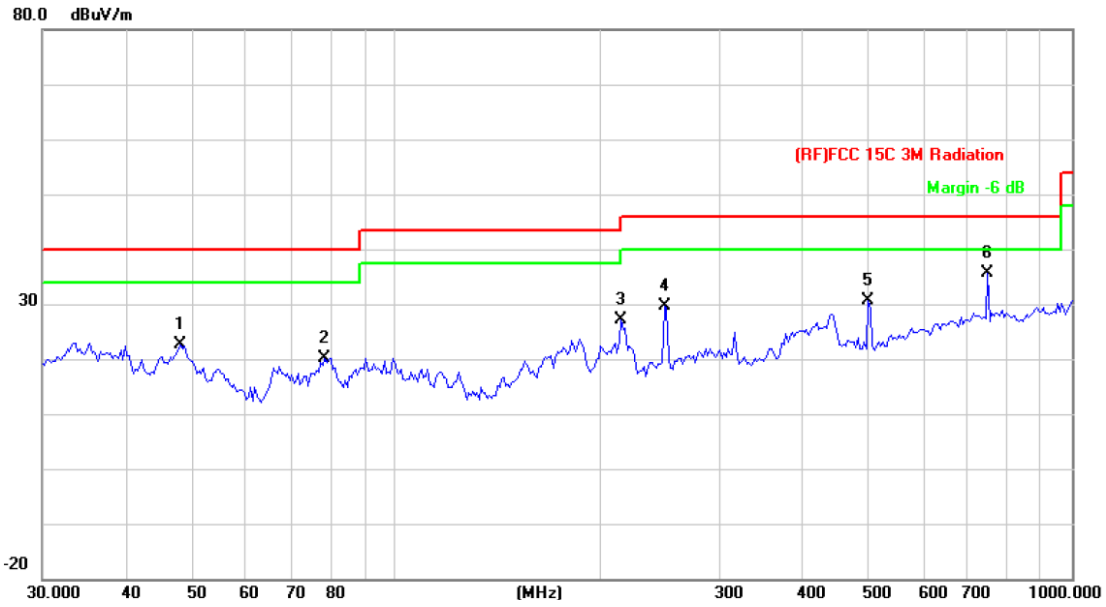
Remark:

1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)

2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)

3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)

Temperature:	23.6℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		
Remark:	Only worst case is reported.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		47.9940	44.97	-22.40	22.57	40.00	-17.43	peak
2		78.4133	42.67	-22.60	20.07	40.00	-19.93	peak
3		215.2678	46.16	-19.13	27.03	43.50	-16.47	peak
4		249.4250	46.76	-17.25	29.51	46.00	-16.49	peak
5		499.4247	41.18	-10.48	30.70	46.00	-15.30	peak
6	*	750.1083	42.16	-6.60	35.56	46.00	-10.44	peak

*:Maximum data x:Over limit !:over margin

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. QuasiPeak (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = QuasiPeak (dBμV/m)-Limit QPK(dBμV/m)

Above 1GHz

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.986	39.14	11.00	50.14	54.00	-3.86	AVG
2		4824.026	46.52	11.00	57.52	74.00	-16.48	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.924	47.11	11.00	58.11	74.00	-15.89	peak
2	*	4824.020	41.69	11.00	52.69	54.00	-1.31	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.036	38.07	11.19	49.26	54.00	-4.74	AVG
2		4874.222	44.63	11.19	55.82	74.00	-18.18	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.000	39.96	11.19	51.15	54.00	-2.85	AVG
2		4874.082	46.48	11.19	57.67	74.00	-16.33	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.826	45.49	11.37	56.86	74.00	-17.14	peak
2	*	4923.996	38.15	11.37	49.52	54.00	-4.48	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX B Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.014	40.52	11.37	51.89	54.00	-2.11	AVG
2		4924.016	47.14	11.37	58.51	74.00	-15.49	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.816	28.76	11.00	39.76	54.00	-14.24	AVG
2		4824.428	42.13	11.00	53.13	74.00	-20.87	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.646	28.67	11.00	39.67	54.00	-14.33	AVG
2		4824.198	42.04	11.00	53.04	74.00	-20.96	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2437MHz Antenna 1+2		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.160	41.24	11.19	52.43	74.00	-21.57	peak
2	*	4874.240	27.89	11.19	39.08	54.00	-14.92	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.028	27.96	11.19	39.15	54.00	-14.85	AVG
2		4874.116	41.64	11.19	52.83	74.00	-21.17	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.506	42.52	11.37	53.89	74.00	-20.11	peak
2	*	4924.146	28.31	11.37	39.68	54.00	-14.32	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4924.116	42.28	11.37	53.65	74.00	-20.35	peak
2	*	4924.422	28.54	11.37	39.91	54.00	-14.09	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT20) Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.788	42.63	11.00	53.63	74.00	-20.37	peak
2	*	4824.136	28.82	11.00	39.82	54.00	-14.18	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT20) Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4824.080	43.38	11.00	54.38	74.00	-19.62	peak
2	*	4824.212	28.68	11.00	39.68	54.00	-14.32	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT20) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.716	28.93	11.19	40.12	54.00	-13.88	AVG
2		4873.882	42.46	11.19	53.65	74.00	-20.35	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT20) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.794	28.97	11.19	40.16	54.00	-13.84	AVG
2		4874.324	42.69	11.19	53.88	74.00	-20.12	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT20) Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.954	41.08	11.37	52.45	74.00	-21.55	peak
2	*	4923.958	27.94	11.37	39.31	54.00	-14.69	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT20) Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.696	27.94	11.37	39.31	54.00	-14.69	AVG
2		4924.420	42.26	11.37	53.63	74.00	-20.37	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT40) Mode 2422MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4843.644	27.69	11.06	38.75	54.00	-15.25	AVG
2		4844.246	42.39	11.07	53.46	74.00	-20.54	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT40) Mode 2422MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4843.502	41.48	11.06	52.54	74.00	-21.46	peak
2	*	4844.008	27.63	11.07	38.70	54.00	-15.30	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT40) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.864	27.97	11.19	39.16	54.00	-14.84	AVG
2		4874.498	41.95	11.19	53.14	74.00	-20.86	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT40) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.518	42.48	11.19	53.67	74.00	-20.33	peak
2	*	4873.724	27.74	11.19	38.93	54.00	-15.07	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX n(HT40) Mode 2452MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4903.530	42.76	11.29	54.05	74.00	-19.95	peak
2	*	4903.630	28.16	11.29	39.45	54.00	-14.55	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX n(HT40) Mode 2452MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4903.862	28.26	11.29	39.55	54.00	-14.45	AVG
2		4904.296	42.01	11.30	53.31	74.00	-20.69	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE20) Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.950	27.30	11.00	38.30	54.00	-15.70	AVG
2		4824.360	41.83	11.00	52.83	74.00	-21.17	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	**Relative Humidity:**	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE20) Mode 2412MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.818	27.45	11.00	38.45	54.00	-15.55	AVG
2		4824.226	41.12	11.00	52.12	74.00	-21.88	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE20) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.188	27.81	11.19	39.00	54.00	-15.00	AVG
2		4874.194	42.13	11.19	53.32	74.00	-20.68	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE20) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.668	28.05	11.19	39.24	54.00	-14.76	AVG
2		4873.714	41.37	11.19	52.56	74.00	-21.44	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE20) Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.852	27.90	11.37	39.27	54.00	-14.73	AVG
2		4924.062	41.62	11.37	52.99	74.00	-21.01	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE20) Mode 2462MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.654	41.86	11.37	53.23	74.00	-20.77	peak
2	*	4923.850	27.89	11.37	39.26	54.00	-14.74	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE40) Mode 2422MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4843.884	41.68	11.07	52.75	74.00	-21.25	peak
2	*	4843.986	27.72	11.07	38.79	54.00	-15.21	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE40) Mode 2422MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4844.320	41.22	11.07	52.29	74.00	-21.71	peak
2	*	4844.440	27.80	11.07	38.87	54.00	-15.13	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE40) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4873.512	27.92	11.19	39.11	54.00	-14.89	AVG
2		4873.924	41.68	11.19	52.87	74.00	-21.13	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE40) Mode 2437MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.390	27.86	11.19	39.05	54.00	-14.95	AVG
2		4874.472	41.70	11.19	52.89	74.00	-21.11	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated 1-26.5GHz, The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX ax(HE40) Mode 2452MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4904.030	42.06	11.29	53.35	74.00	-20.65	peak
2	*	4904.362	28.10	11.30	39.40	54.00	-14.60	AVG

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

Temperature:	23.4℃	Relative Humidity:	43%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	TX ax(HE40) Mode 2452MHz		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4903.978	28.15	11.29	39.44	54.00	-14.56	AVG
2		4904.304	41.64	11.30	52.94	74.00	-21.06	peak

Remark:
1. Corr. = Antenna Factor (dB/m) + Cable Loss (dB)
2. Peak/AVG (dBμV/m)= Corr. (dB/m)+ Read Level (dBμV)
3. Margin (dB) = Peak/AVG (dBμV/m)-Limit PK/AVG(dBμV/m)
4. The tests evaluated1-26.5GHz,The testing has been conformed to the 10th harmonic of the highest fundamental frequency.
5. No report for the emission which more than 20dB below the prescribed limit.

---Conducted Unwanted Emissions

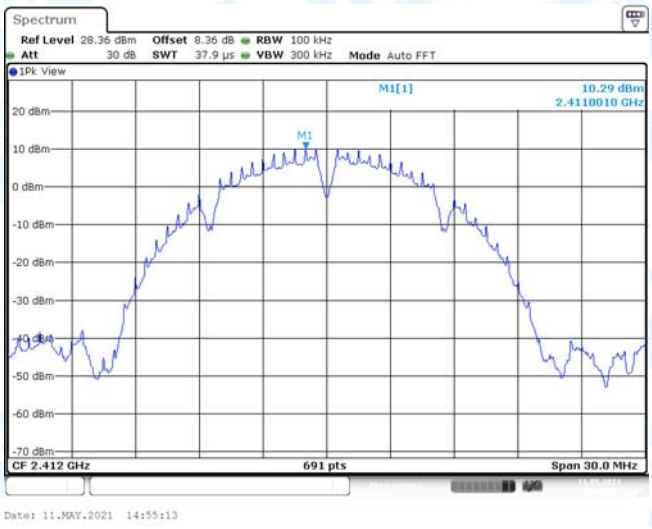
Test Mode	Antenna	Channel	Freq Range [Mhz]	Ref Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
11B-MIMO	Ant1	2412	Reference	10.29	10.29	---	PASS
			30~1000	10.29	-60.29	<=-9.71	PASS
			1000~26500	10.29	-49.95	<=-9.71	PASS
	Ant2	2412	Reference	9.34	9.34	---	PASS
			30~1000	9.34	-61.43	<=-10.66	PASS
			1000~26500	9.34	-50.33	<=-10.66	PASS
	Ant1	2437	Reference	9.49	9.49	---	PASS
			30~1000	9.49	-62.2	<=-10.51	PASS
			1000~26500	9.49	-51.06	<=-10.51	PASS
	Ant2	2437	Reference	9.71	9.71	---	PASS
			30~1000	9.71	-62.74	<=-10.29	PASS
			1000~26500	9.71	-50.15	<=-10.29	PASS
	Ant1	2462	Reference	10.37	10.37	---	PASS
			30~1000	10.37	-62.81	<=-9.63	PASS
			1000~26500	10.37	-49.96	<=-9.63	PASS
	Ant2	2462	Reference	9.49	9.49	---	PASS
			30~1000	9.49	-62.51	<=-10.51	PASS
			1000~26500	9.49	-49.91	<=-10.51	PASS
11G-MIMO	Ant1	2412	Reference	2.93	2.93	---	PASS
			30~1000	2.93	-62.91	<=-17.07	PASS
			1000~26500	2.93	-53.44	<=-17.07	PASS
	Ant2	2412	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-63.21	<=-18.05	PASS
			1000~26500	1.95	-53.22	<=-18.05	PASS
	Ant1	2437	Reference	1.76	1.76	---	PASS
			30~1000	1.76	-62.18	<=-18.24	PASS
			1000~26500	1.76	-53.34	<=-18.24	PASS
	Ant2	2437	Reference	2.75	2.75	---	PASS
			30~1000	2.75	-63.28	<=-17.25	PASS
			1000~26500	2.75	-52.59	<=-17.25	PASS
	Ant1	2462	Reference	3.24	3.24	---	PASS
			30~1000	3.24	-61.79	<=-16.76	PASS
			1000~26500	3.24	-52.26	<=-16.76	PASS
	Ant2	2462	Reference	2.52	2.52	---	PASS
			30~1000	2.52	-63.59	<=-17.48	PASS
			1000~26500	2.52	-53.25	<=-17.48	PASS
11N20MIMO	Ant1	2412	Reference	-0.81	-0.81	---	PASS
			30~1000	-0.81	-62.62	<=-20.81	PASS
			1000~26500	-0.81	-53.17	<=-20.81	PASS
	Ant2	2412	Reference	-0.83	-0.83	---	PASS
			30~1000	-0.83	-62.04	<=-20.83	PASS

			1000~26500	-0.83	-53.33	<=-20.83	PASS
	Ant1	2437	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-62.82	<=-20.66	PASS
			1000~26500	-0.66	-52.84	<=-20.66	PASS
	Ant2	2437	Reference	-0.90	-0.90	---	PASS
			30~1000	-0.90	-63.39	<=-20.9	PASS
			1000~26500	-0.90	-51.74	<=-20.9	PASS
	Ant1	2462	Reference	0.75	0.75	---	PASS
			30~1000	0.75	-63.18	<=-19.25	PASS
			1000~26500	0.75	-53.04	<=-19.25	PASS
	Ant2	2462	Reference	0.03	0.03	---	PASS
			30~1000	0.03	-63.12	<=-19.97	PASS
			1000~26500	0.03	-53.12	<=-19.97	PASS
11N40MIMO	Ant1	2422	Reference	-4.45	-4.45	---	PASS
			30~1000	-4.45	-62.43	<=-24.45	PASS
			1000~26500	-4.45	-53.32	<=-24.45	PASS
	Ant2	2422	Reference	-4.45	-4.45	---	PASS
			30~1000	-4.45	-62.82	<=-24.45	PASS
			1000~26500	-4.45	-52.72	<=-24.45	PASS
	Ant1	2437	Reference	-3.95	-3.95	---	PASS
			30~1000	-3.95	-61.84	<=-23.95	PASS
			1000~26500	-3.95	-52.53	<=-23.95	PASS
	Ant2	2437	Reference	-3.87	-3.87	---	PASS
			30~1000	-3.87	-62.68	<=-23.87	PASS
			1000~26500	-3.87	-52.82	<=-23.87	PASS
	Ant1	2452	Reference	-3.73	-3.73	---	PASS
			30~1000	-3.73	-61.65	<=-23.73	PASS
			1000~26500	-3.73	-53.18	<=-23.73	PASS
	Ant2	2452	Reference	-3.11	-3.11	---	PASS
			30~1000	-3.11	-63.21	<=-23.11	PASS
			1000~26500	-3.11	-52.8	<=-23.11	PASS
11AX20MIMO	Ant1	2412	Reference	-0.73	-0.73	---	PASS
			30~1000	-0.73	-61.61	<=-20.73	PASS
			1000~26500	-0.73	-53.06	<=-20.73	PASS
	Ant2	2412	Reference	-1.15	-1.15	---	PASS
			30~1000	-1.15	-63.18	<=-21.15	PASS
			1000~26500	-1.15	-53.14	<=-21.15	PASS
	Ant1	2437	Reference	-1.16	-1.16	---	PASS
			30~1000	-1.16	-62.6	<=-21.16	PASS
			1000~26500	-1.16	-51.58	<=-21.16	PASS
	Ant2	2437	Reference	-0.66	-0.66	---	PASS
			30~1000	-0.66	-62.33	<=-20.66	PASS
			1000~26500	-0.66	-53.18	<=-20.66	PASS

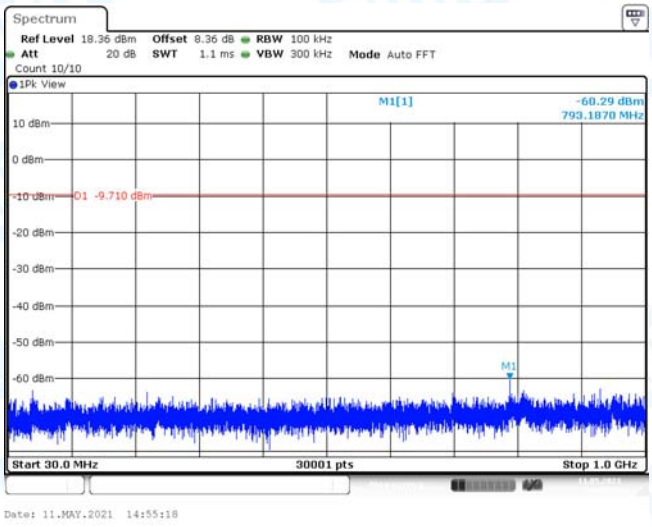
	Ant1	2462	Reference	-0.69	-0.69	---	PASS
			30~1000	-0.69	-63.28	<=-20.69	PASS
			1000~26500	-0.69	-53.63	<=-20.69	PASS
	Ant2	2462	Reference	-0.65	-0.65	---	PASS
			30~1000	-0.65	-63.61	<=-20.65	PASS
			1000~26500	-0.65	-53.27	<=-20.65	PASS
11AX40MIMO	Ant1	2422	Reference	-4.39	-4.39	---	PASS
			30~1000	-4.39	-63.2	<=-24.39	PASS
			1000~26500	-4.39	-52.76	<=-24.39	PASS
	Ant2	2422	Reference	-3.84	-3.84	---	PASS
			30~1000	-3.84	-61.95	<=-23.84	PASS
			1000~26500	-3.84	-53.42	<=-23.84	PASS
	Ant1	2437	Reference	-3.98	-3.98	---	PASS
			30~1000	-3.98	-62.34	<=-23.98	PASS
			1000~26500	-3.98	-53.41	<=-23.98	PASS
	Ant2	2437	Reference	-4.25	-4.25	---	PASS
			30~1000	-4.25	-61.24	<=-24.25	PASS
			1000~26500	-4.25	-52.71	<=-24.25	PASS
	Ant1	2452	Reference	-4.07	-4.07	---	PASS
			30~1000	-4.07	-63.31	<=-24.07	PASS
			1000~26500	-4.07	-53.15	<=-24.07	PASS
	Ant2	2452	Reference	-3.22	-3.22	---	PASS
			30~1000	-3.22	-61.84	<=-23.22	PASS
			1000~26500	-3.22	-53.07	<=-23.22	PASS

Test Graphs

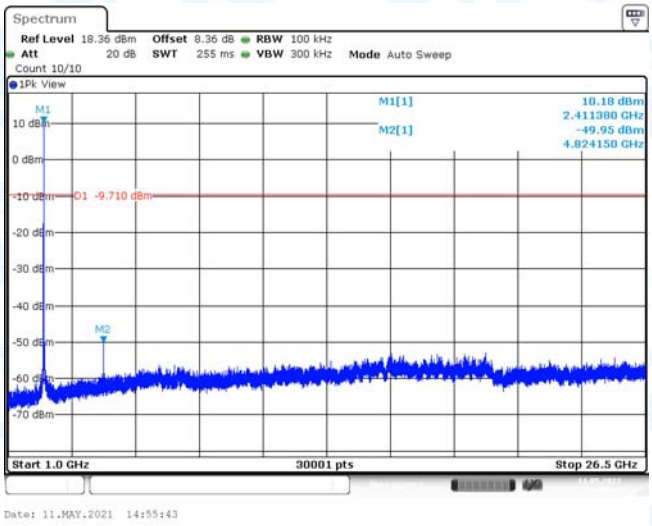
11B-MIMO_Ant1_2412_0~Reference

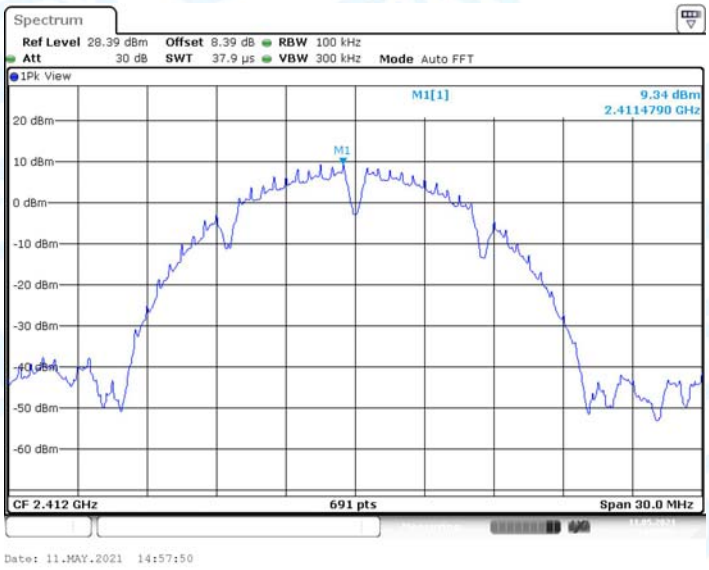


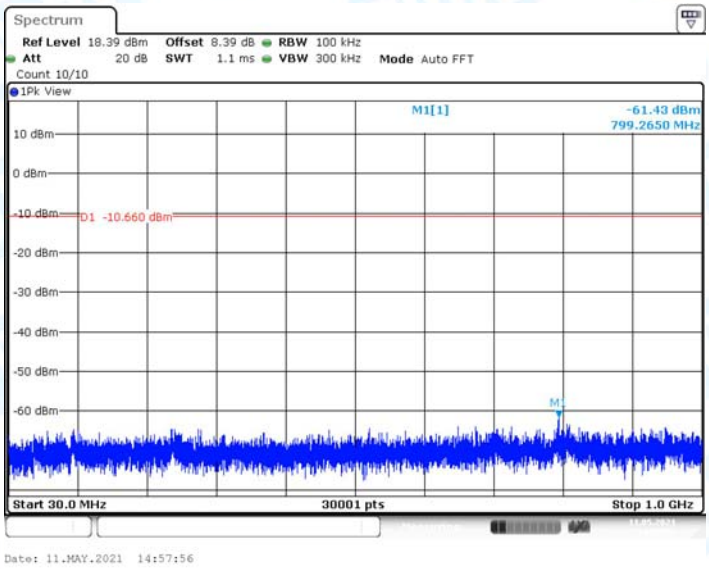
11B-MIMO_Ant1_2412_30~1000

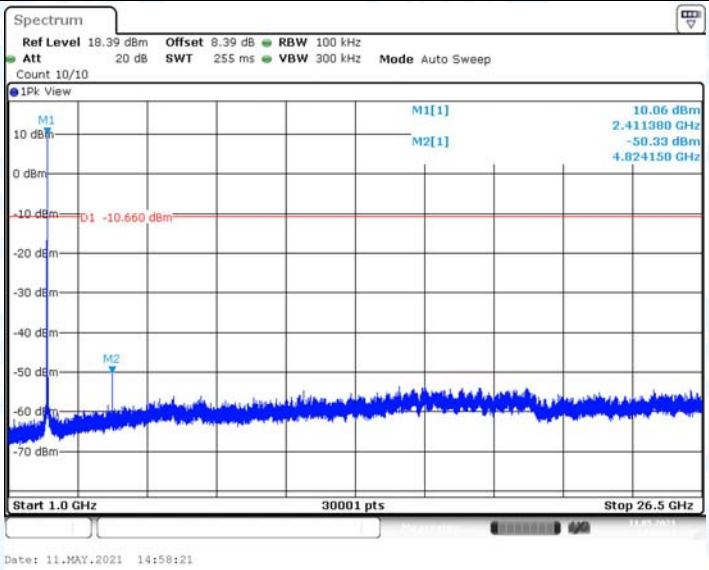


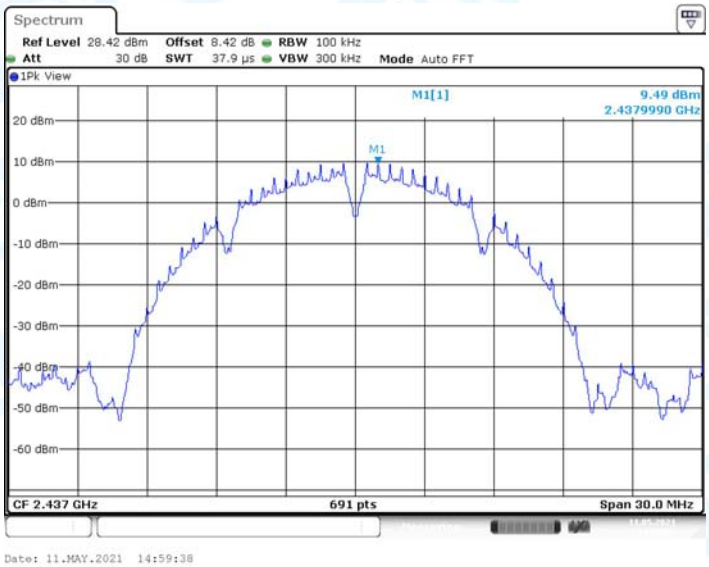
11B-MIMO_Ant1_2412_1000~26500

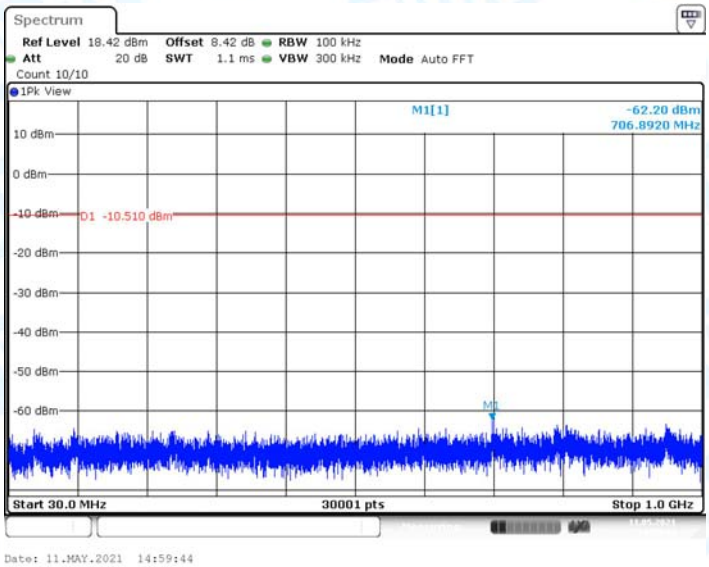


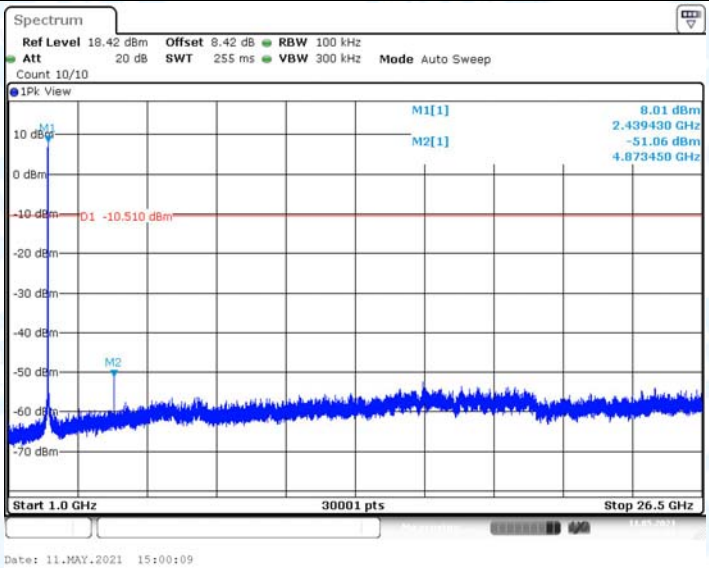
11B-MIMO_Ant2_2412_0~Reference


11B-MIMO_Ant2_2412_30~1000


11B-MIMO_Ant2_2412_1000~26500


11B-MIMO_Ant1_2437_0~Reference


11B-MIMO_Ant1_2437_30~1000


11B-MIMO_Ant1_2437_1000~26500


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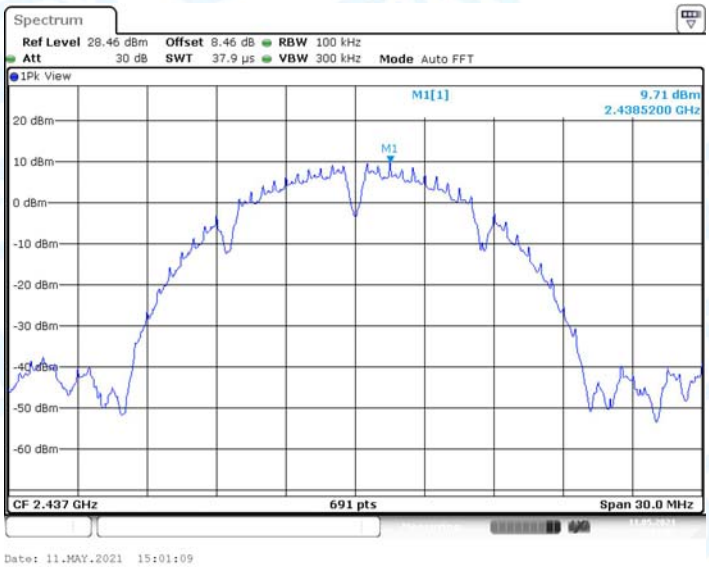
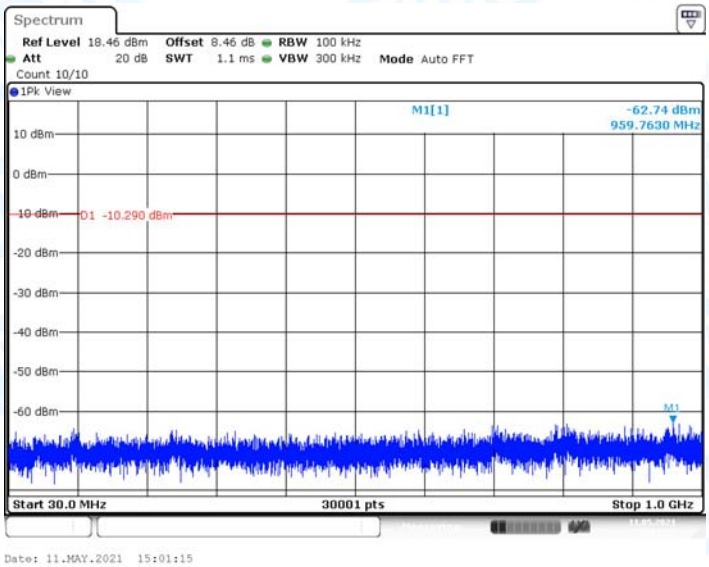
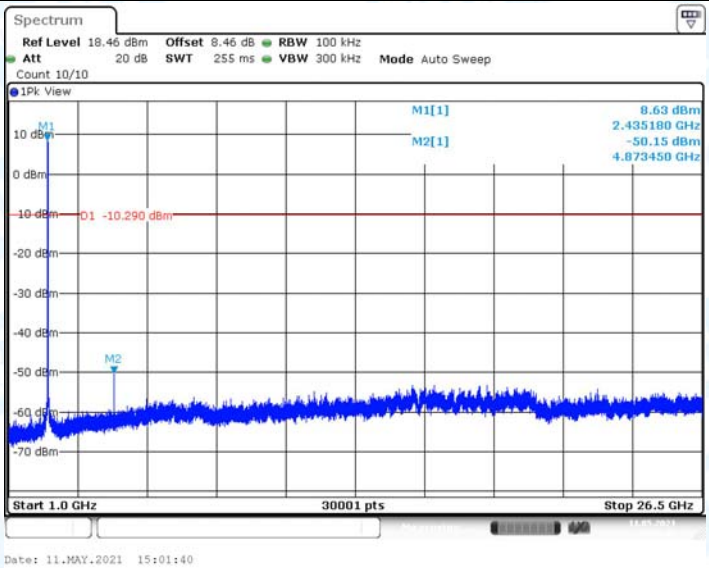
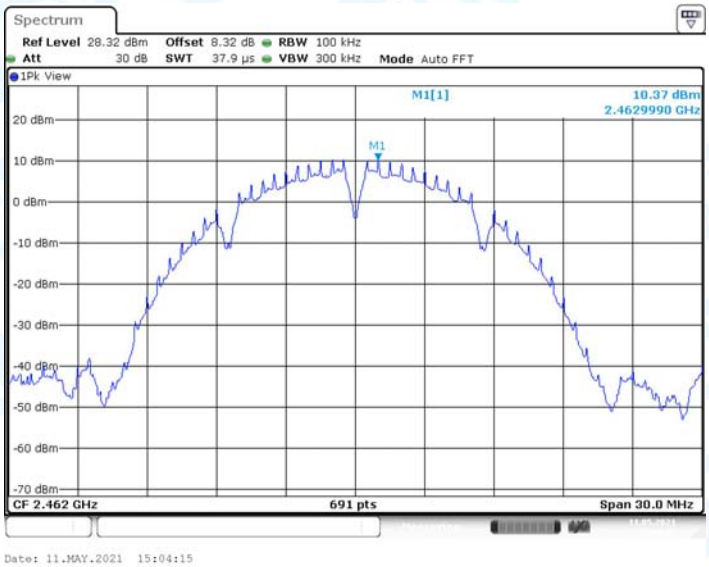
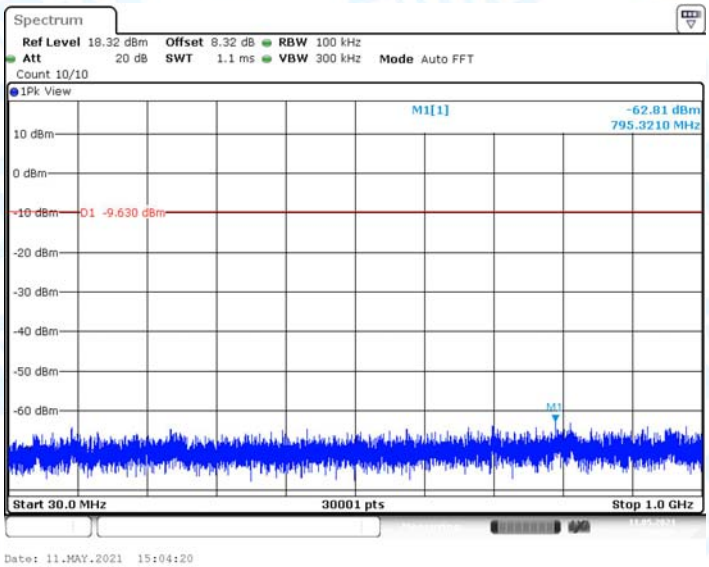
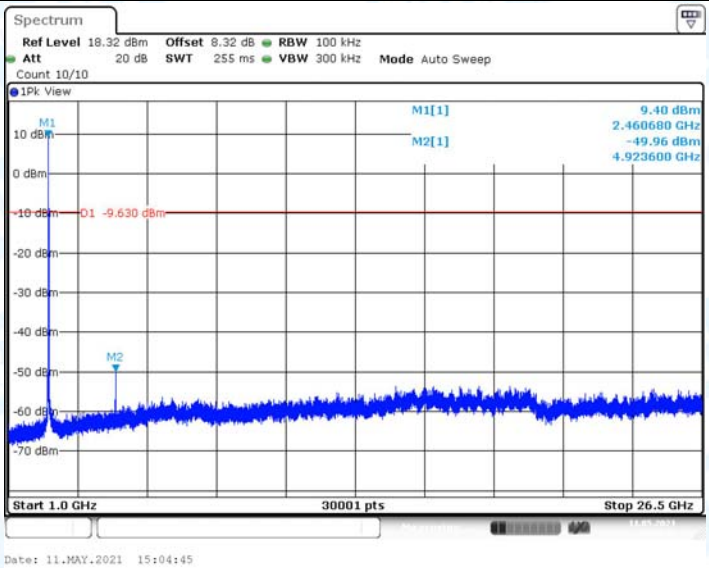


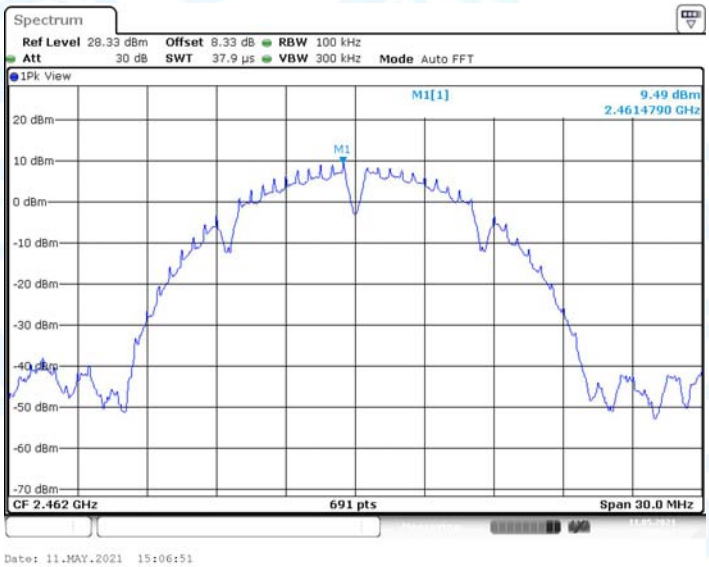
11B-MIMO_Ant2_2437_30~1000


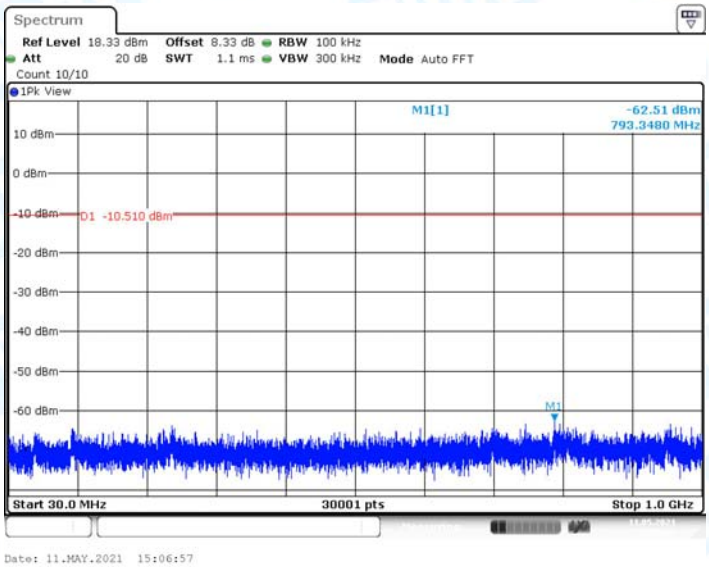
11B-MIMO_Ant2_2437_1000~26500


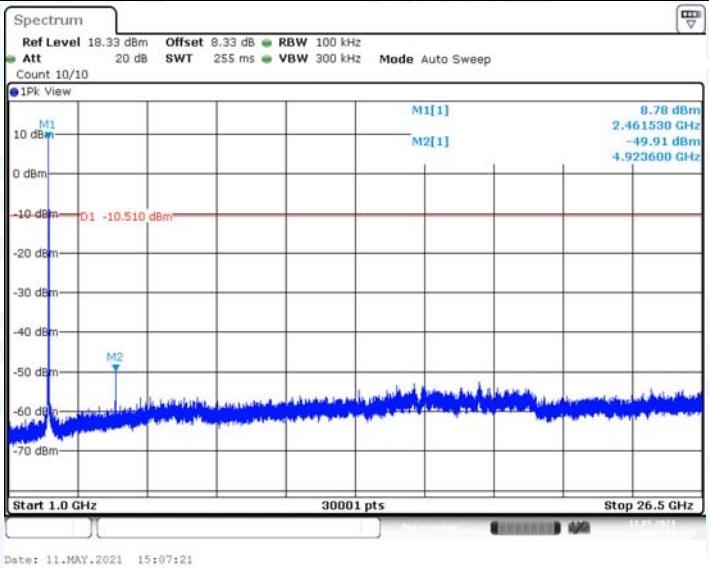
11B-MIMO_Ant1_2462_0~Reference


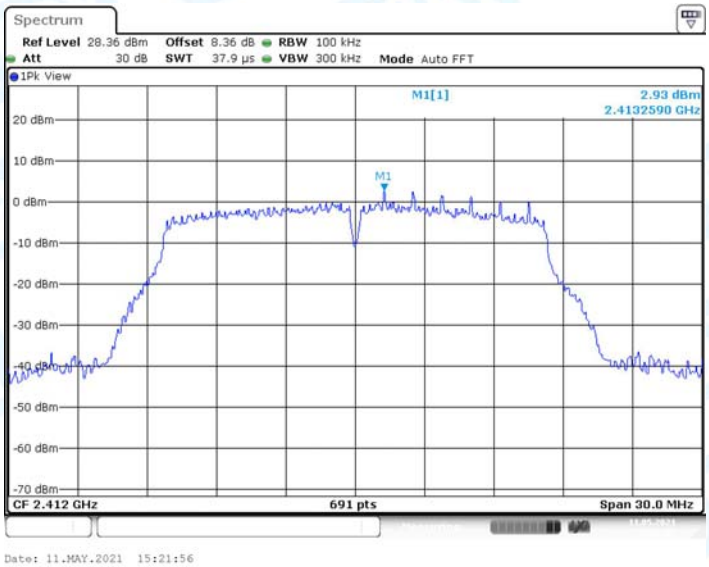
11B-MIMO_Ant1_2462_30~1000


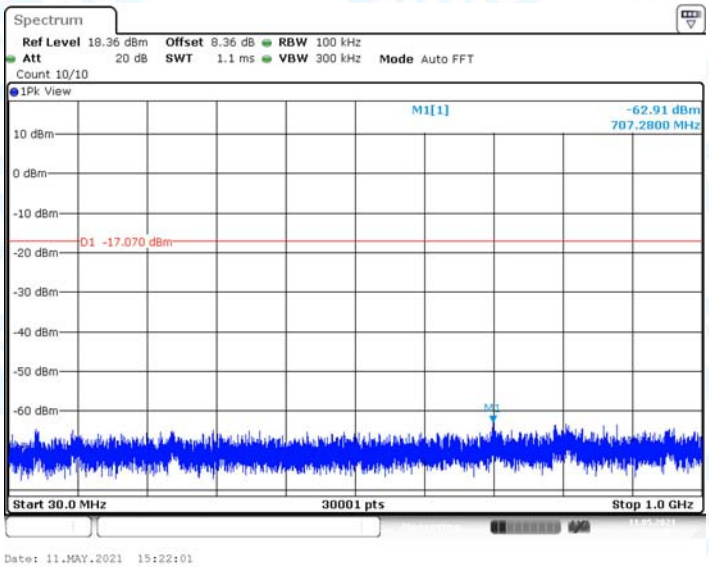
11B-MIMO_Ant1_2462_1000~26500


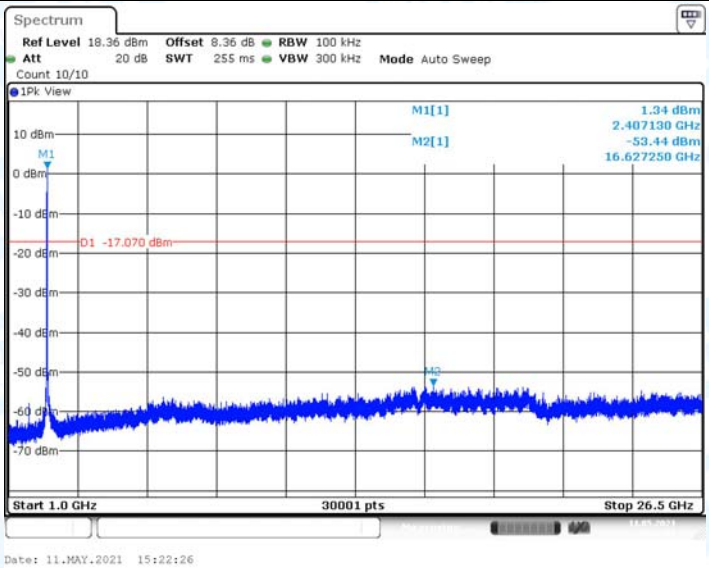
11B-MIMO_Ant2_2462_0~Reference


11B-MIMO_Ant2_2462_30~1000


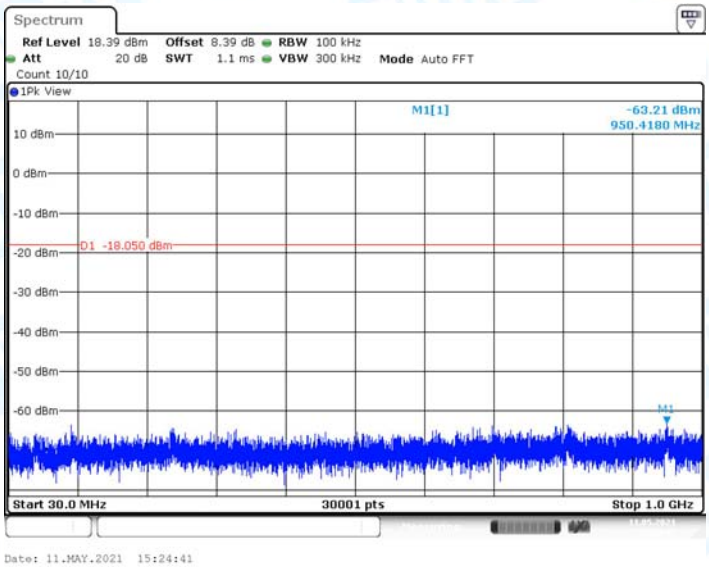
11B-MIMO_Ant2_2462_1000~26500


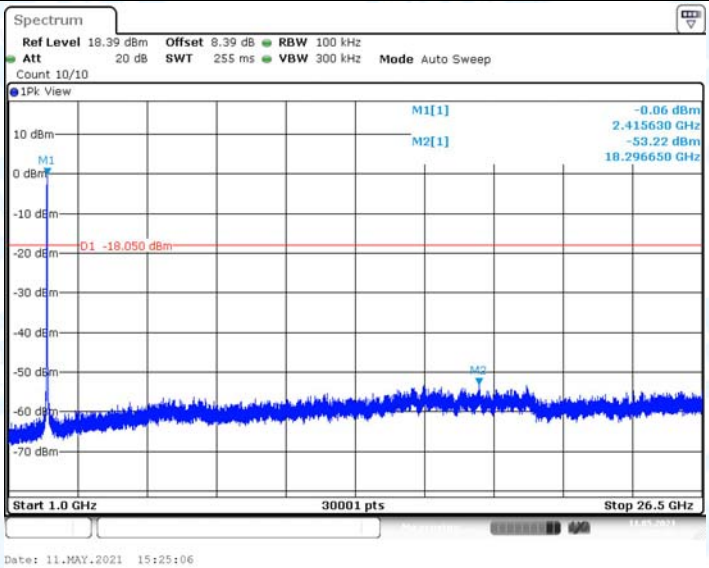
11G-MIMO_Ant1_2412_0~Reference


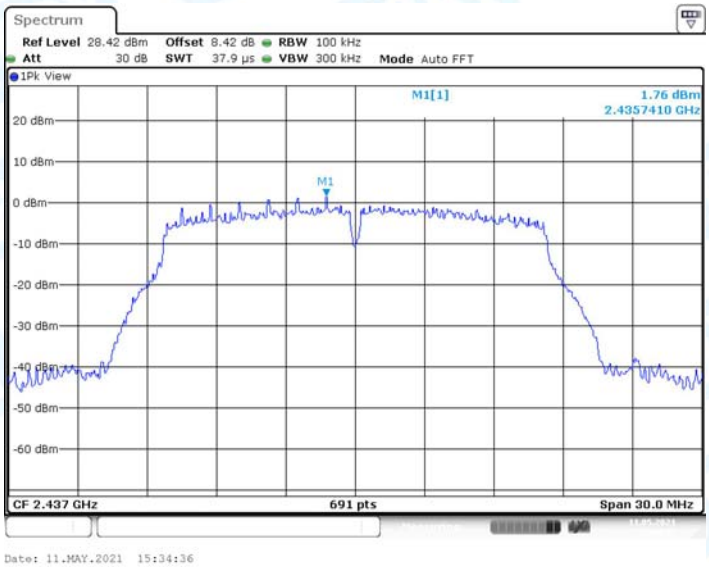
11G-MIMO_Ant1_2412_30~1000


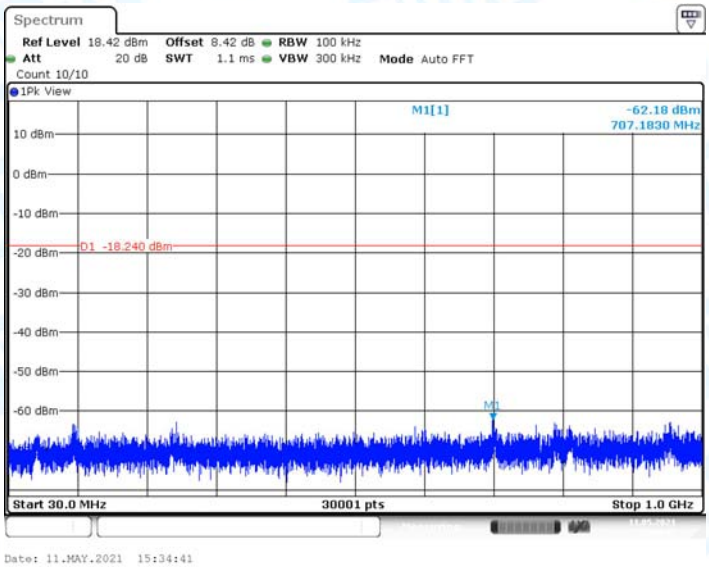
11G-MIMO_Ant1_2412_1000~26500


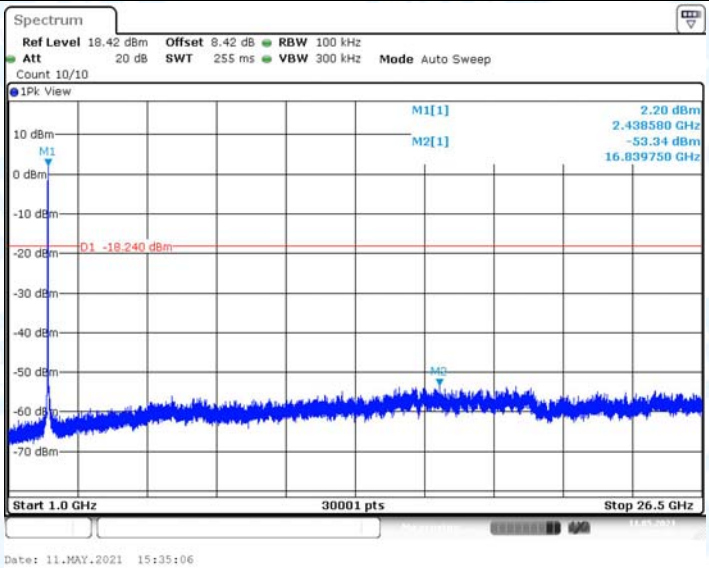
11G-MIMO_Ant2_2412_0~Reference

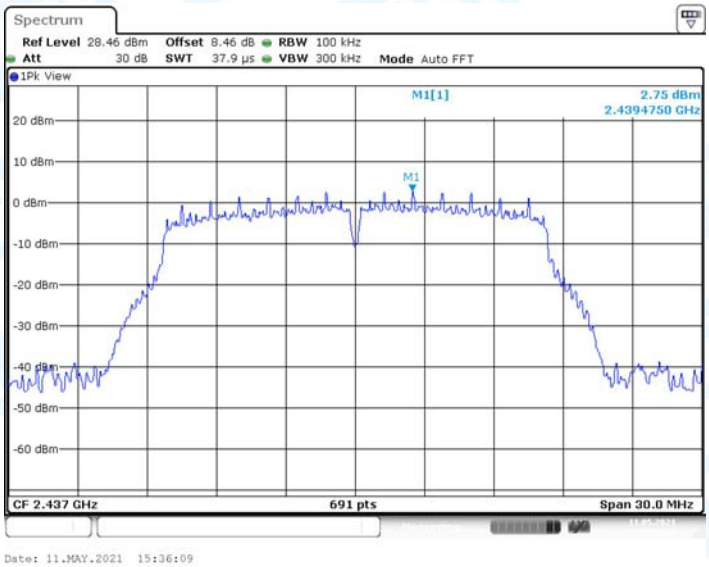

11G-MIMO_Ant2_2412_30~1000


11G-MIMO_Ant2_2412_1000~26500


11G-MIMO_Ant1_2437_0~Reference


11G-MIMO_Ant1_2437_30~1000


11G-MIMO_Ant1_2437_1000~26500


11G-MIMO_Ant2_2437_0~Reference


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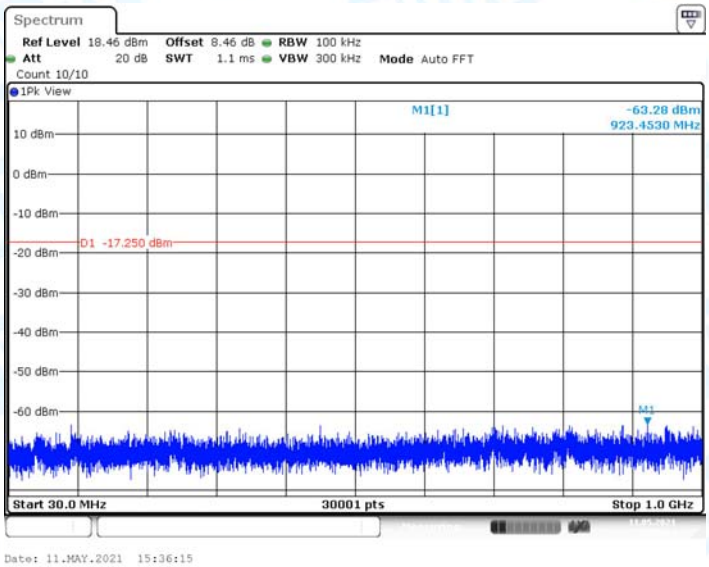

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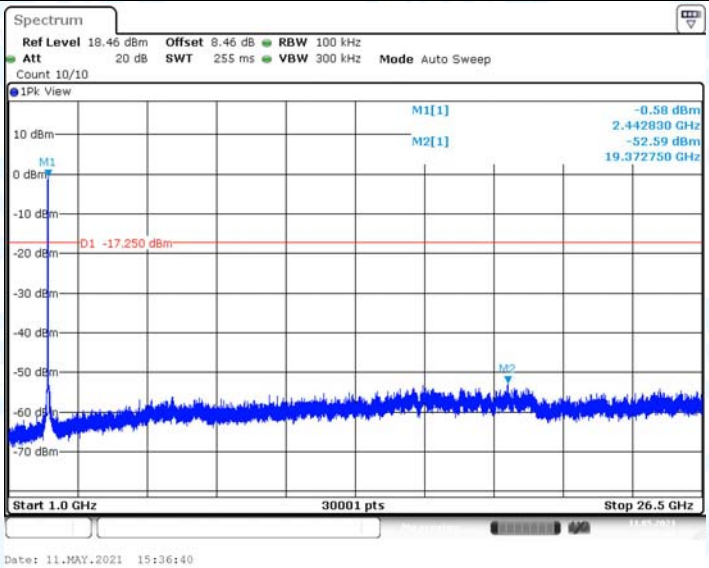

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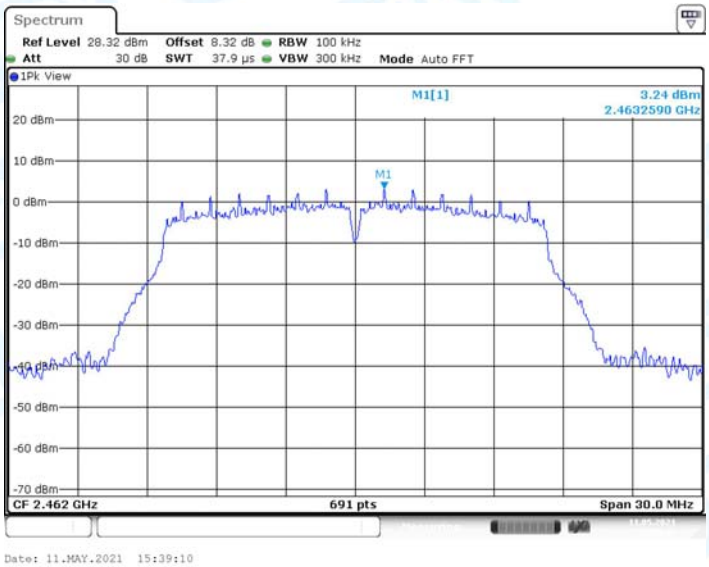
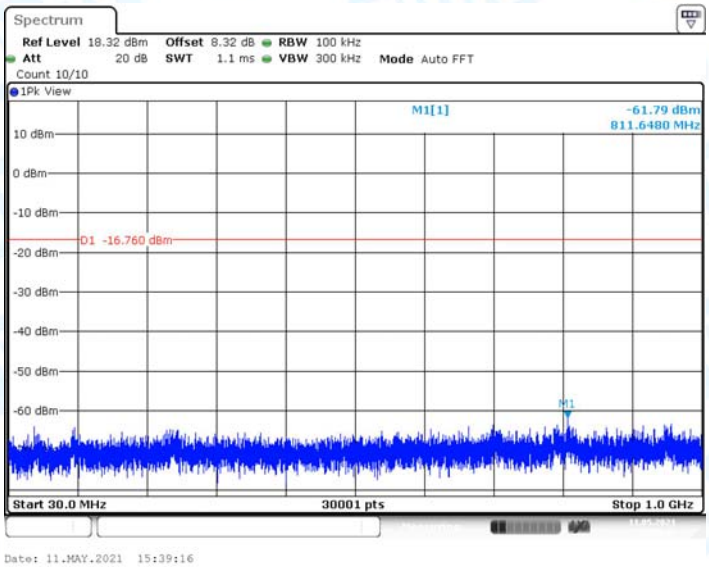
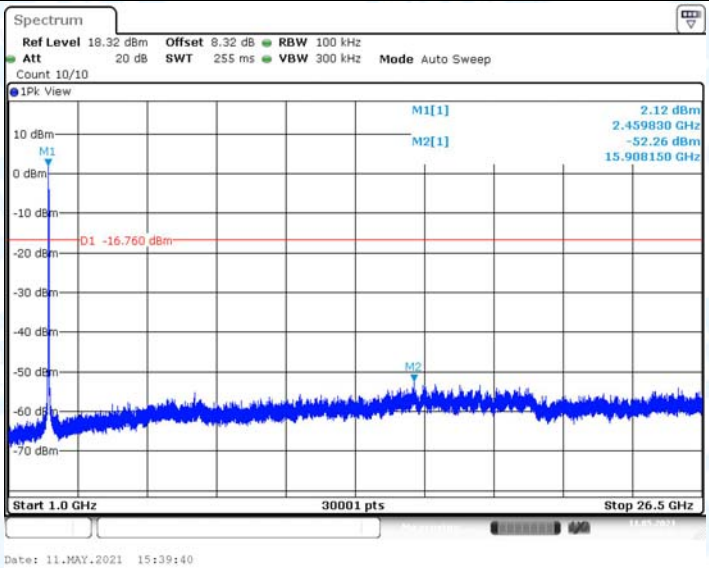


11G-MIMO_Ant1_2462_30~1000


11G-MIMO_Ant1_2462_1000~26500


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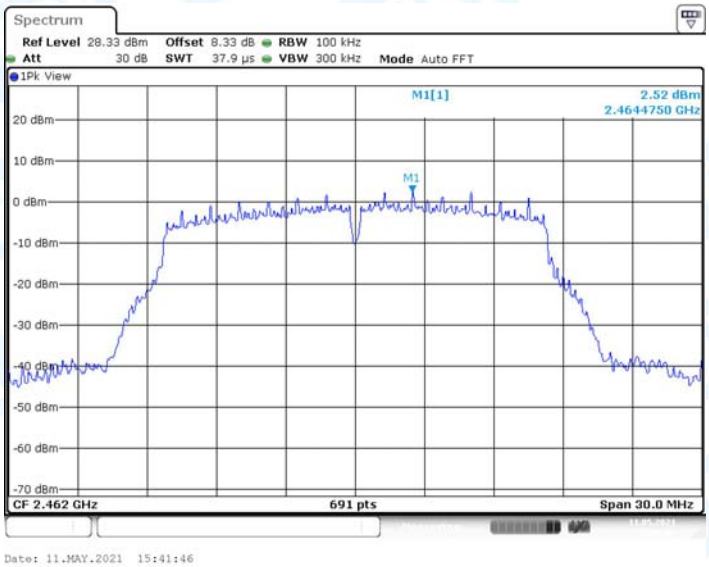
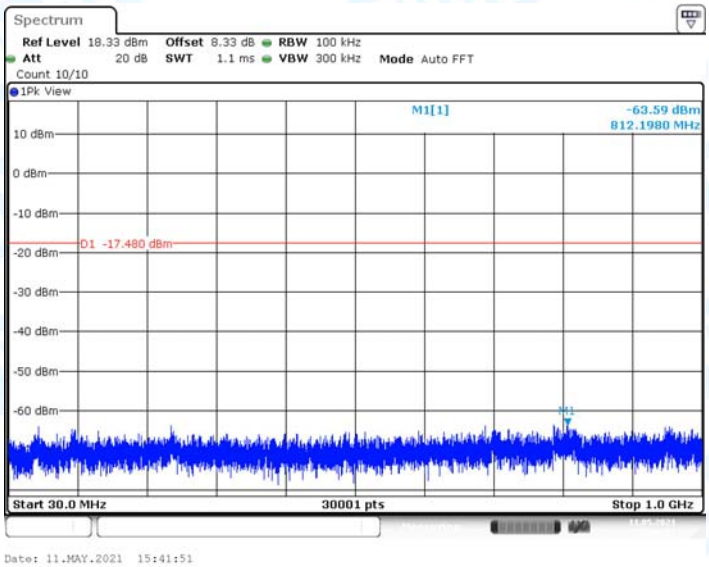
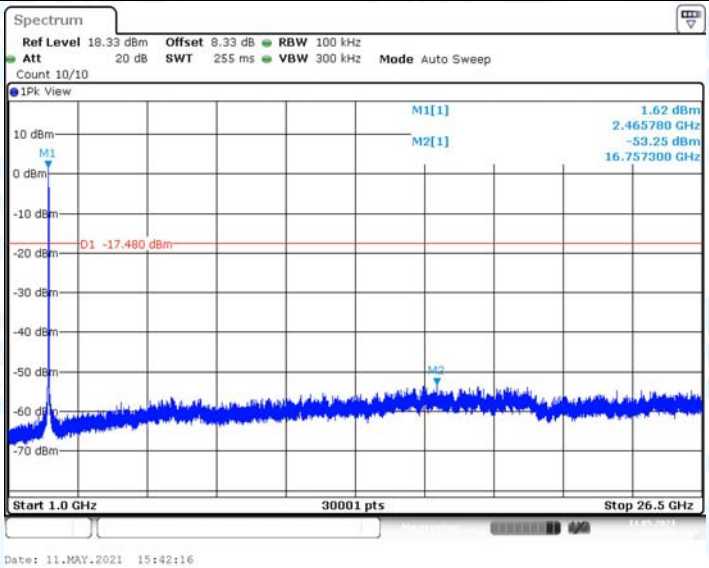
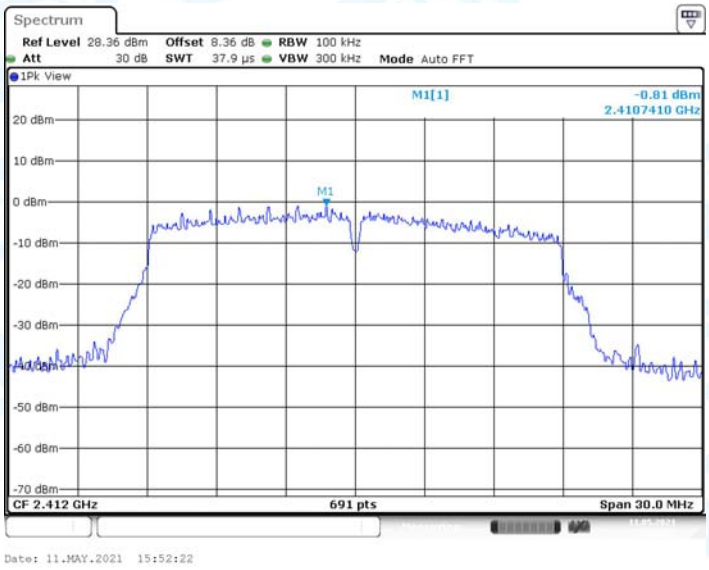
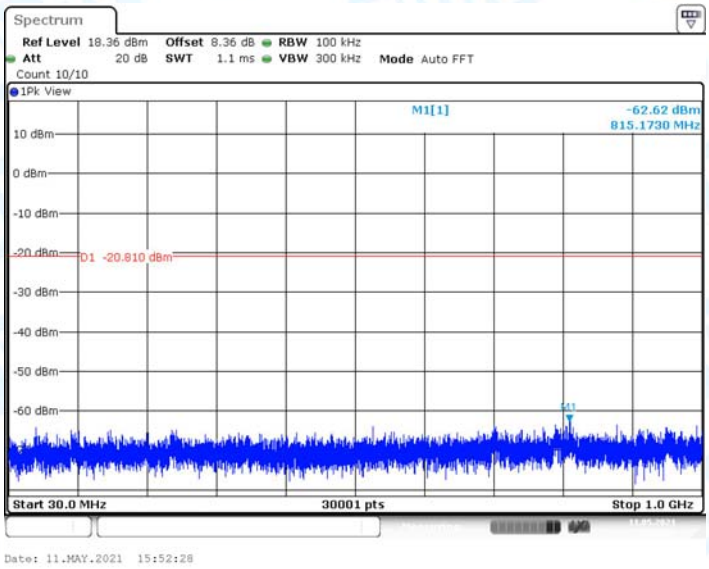
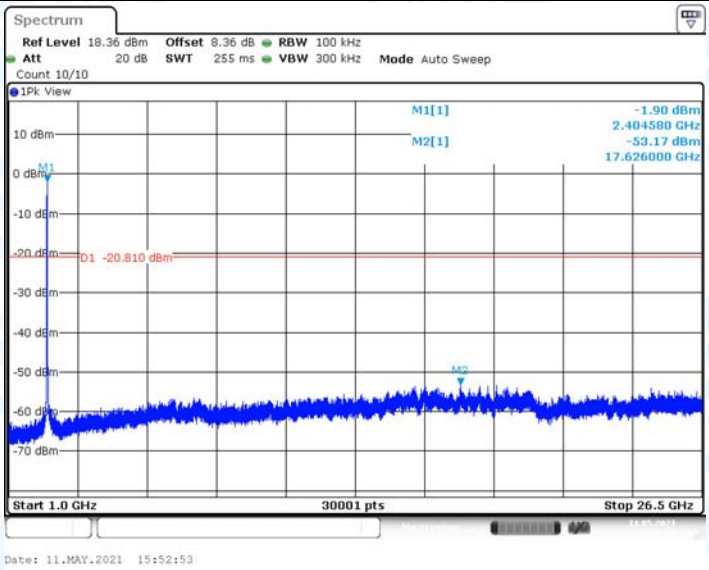


11G-MIMO_Ant2_2462_30~1000


11G-MIMO_Ant2_2462_1000~26500


11N20MIMO_Ant1_2412_0~Reference


11N20MIMO_Ant1_2412_30~1000


11N20MIMO_Ant1_2412_1000~26500


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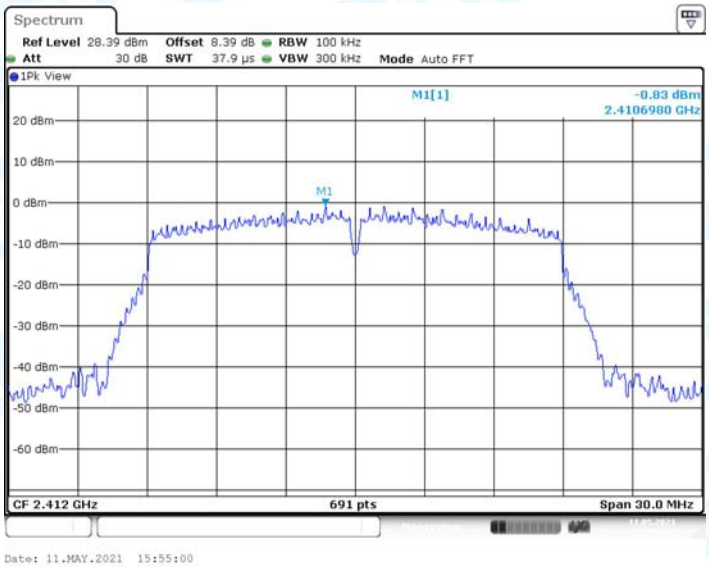
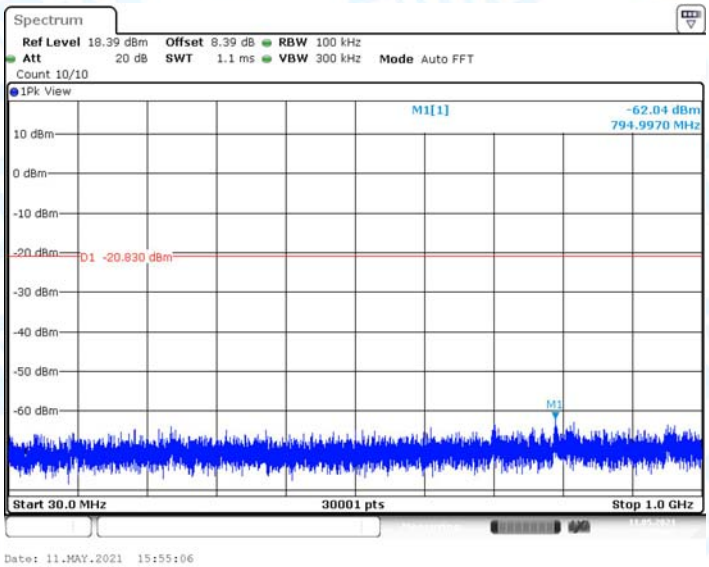
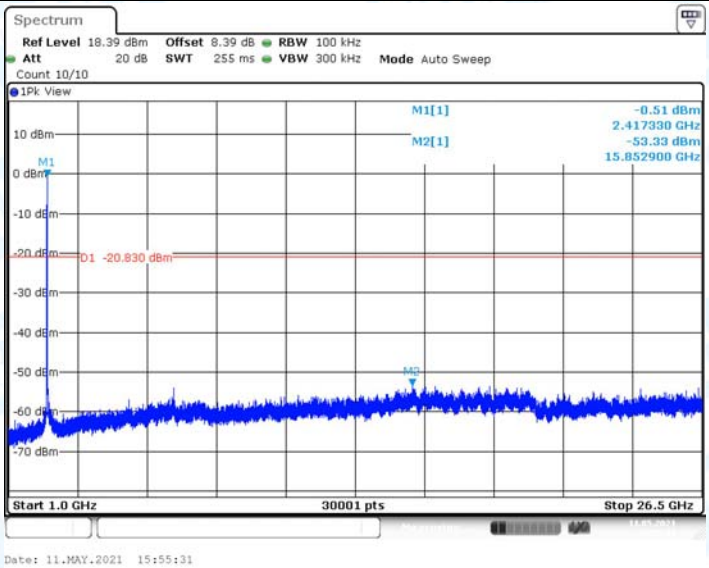


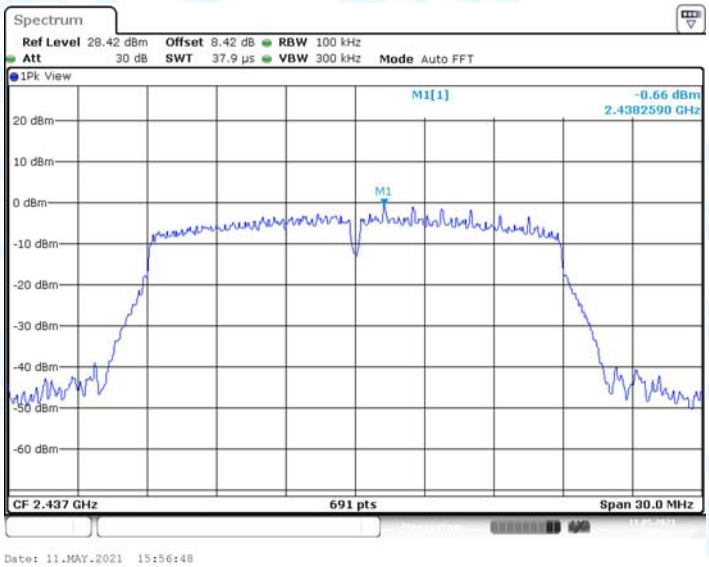
11N20MIMO_Ant2_2412_30~1000



11N20MIMO_Ant2_2412_1000~26500



11N20MIMO_Ant1_2437_0~Reference



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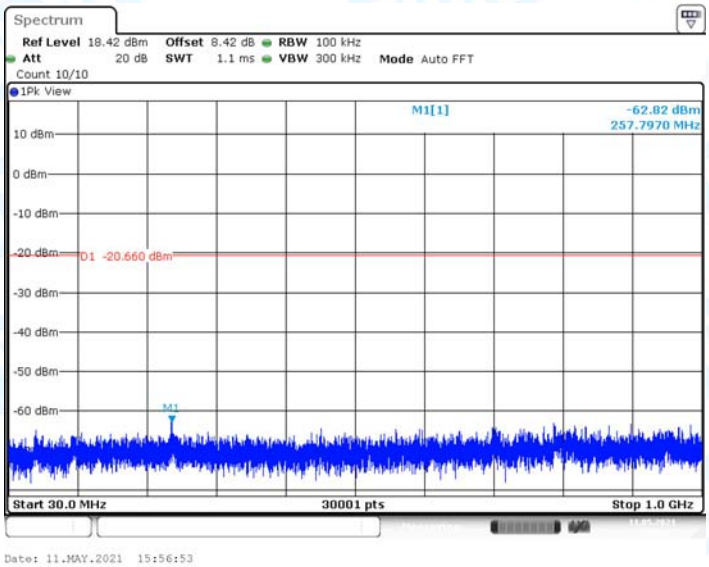

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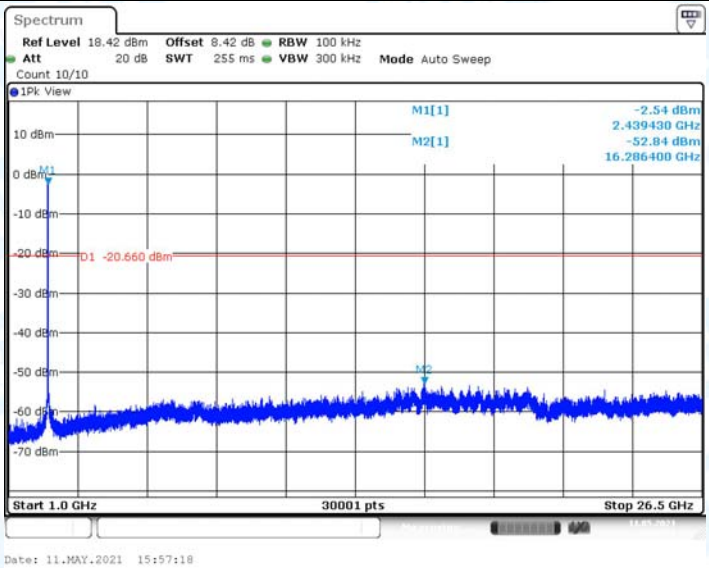

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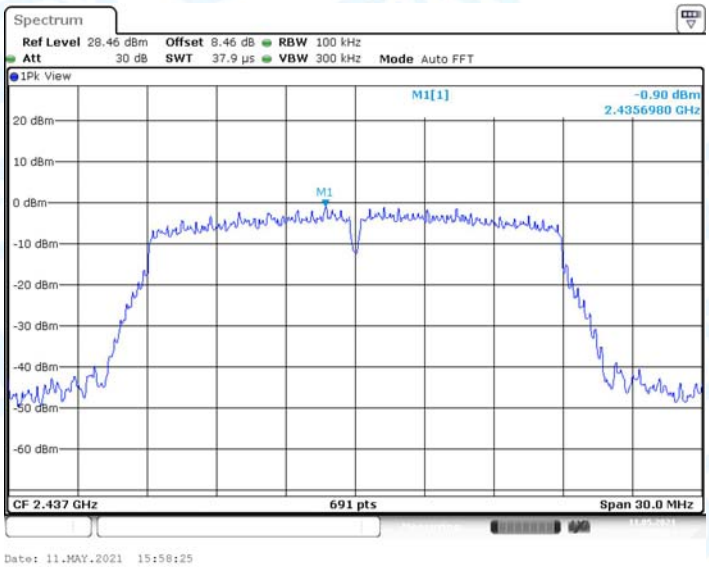

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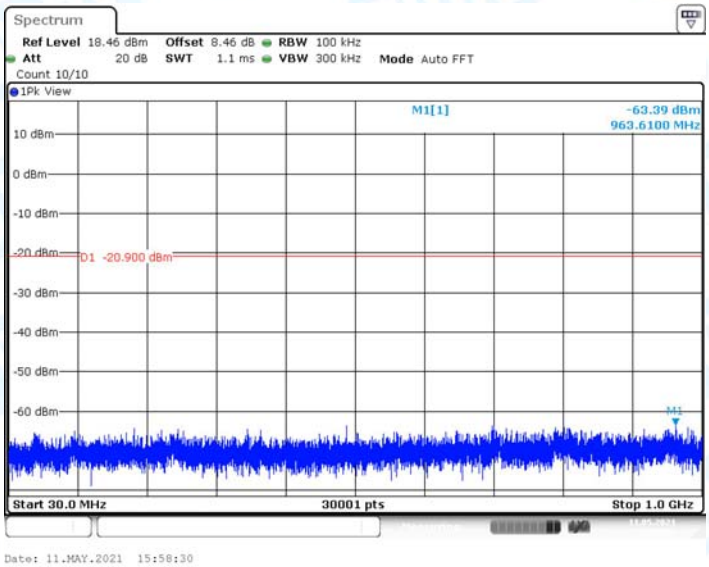
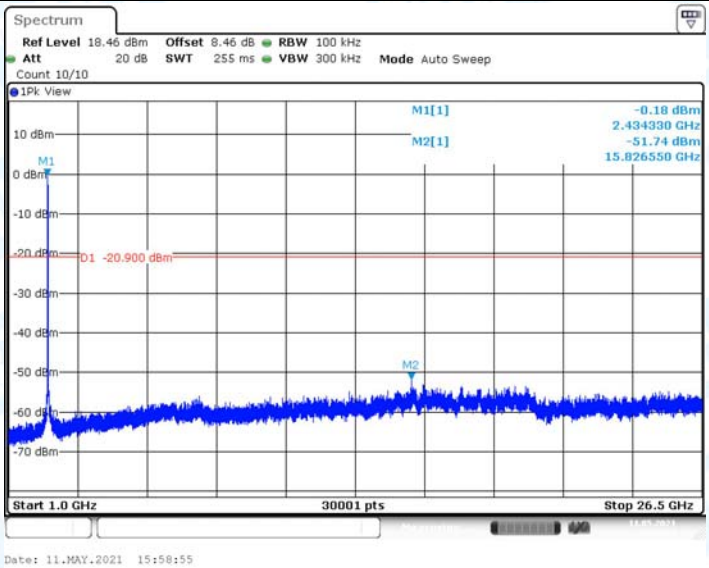
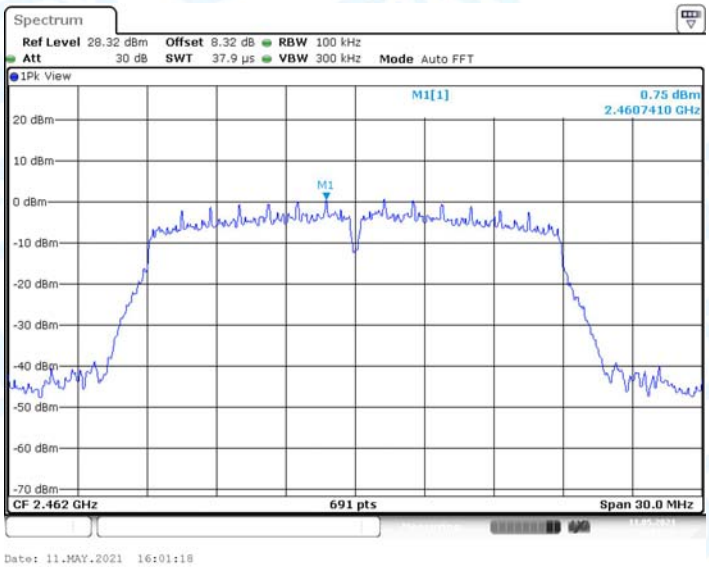


11N20MIMO_Ant2_2437_1000~26500



11N20MIMO_Ant1_2462_0~Reference



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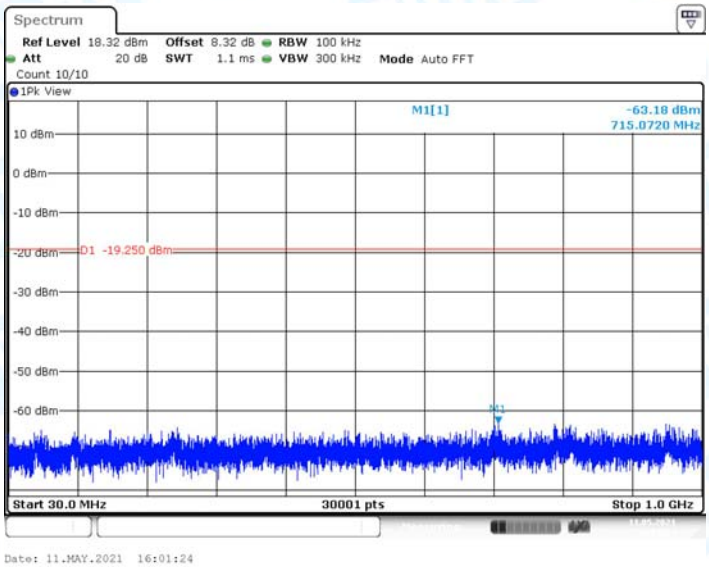
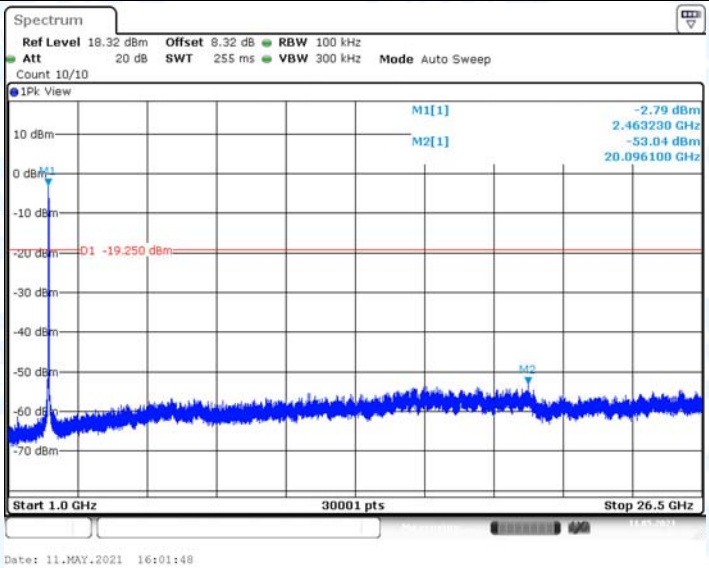


11N20MIMO_Ant1_2462_1000~26500



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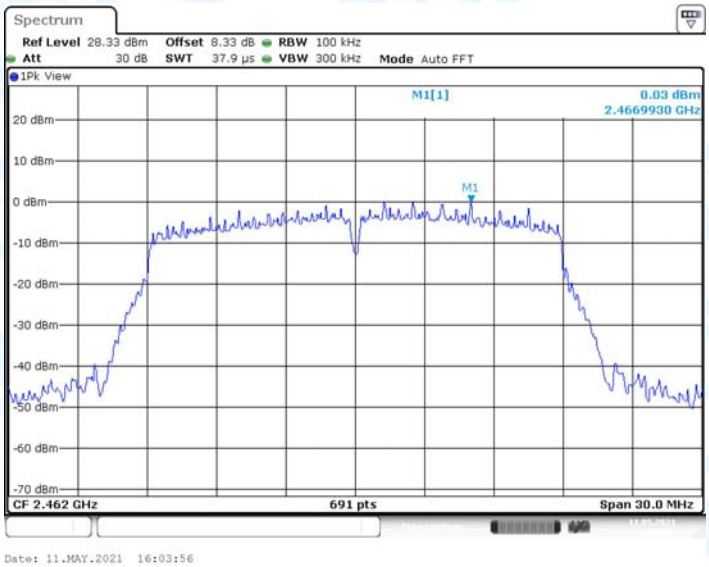
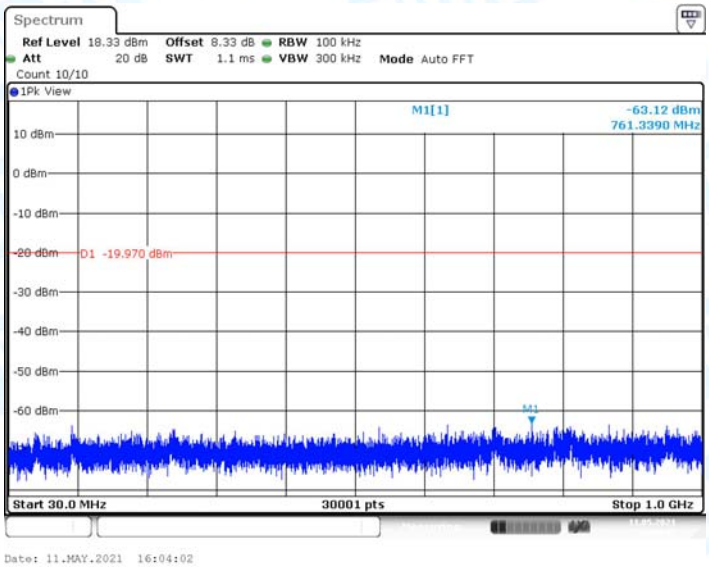


11N20MIMO_Ant2_2462_30~1000


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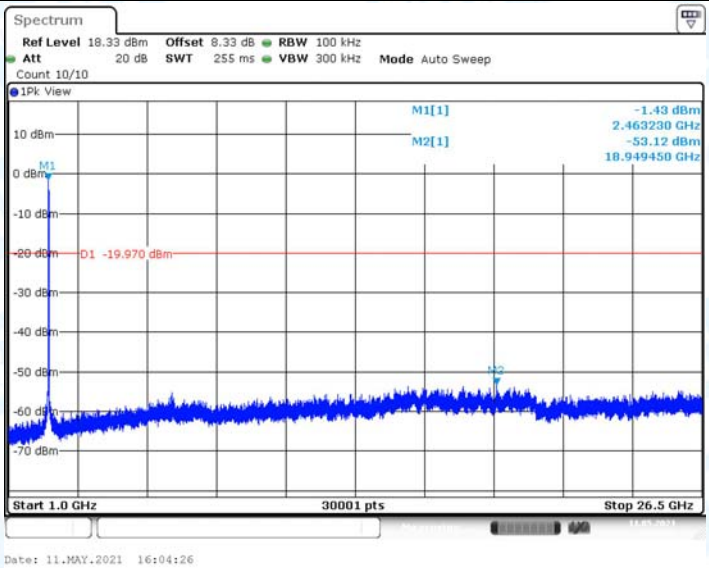

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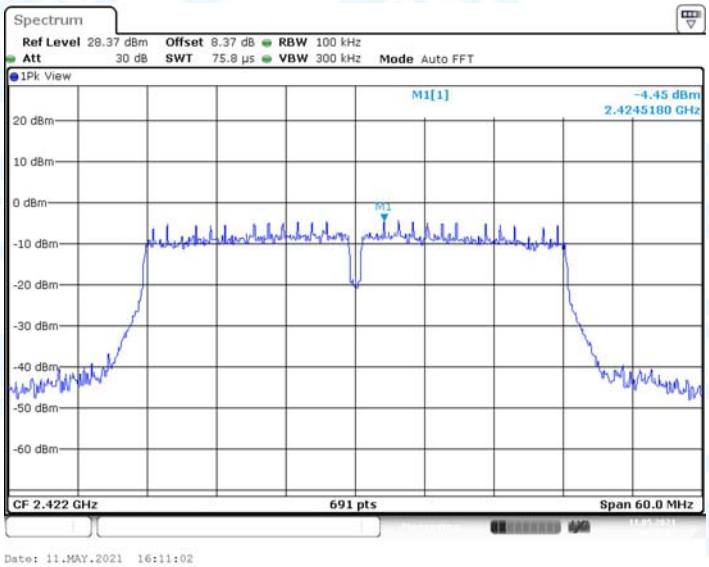

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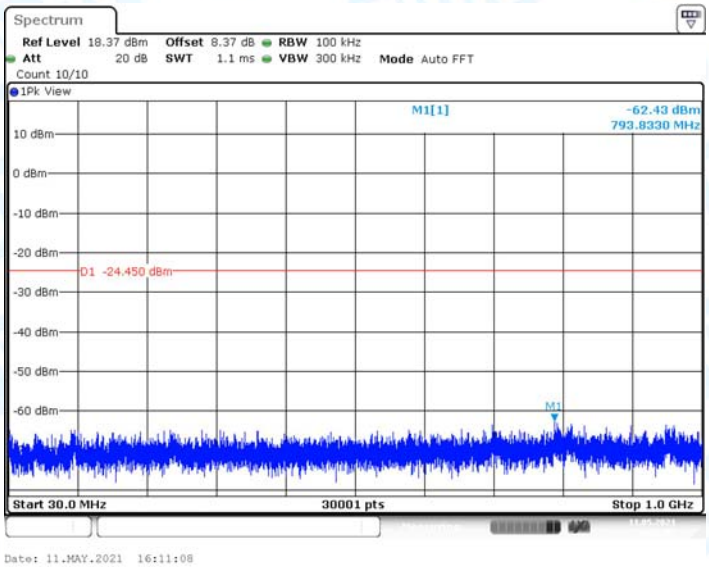

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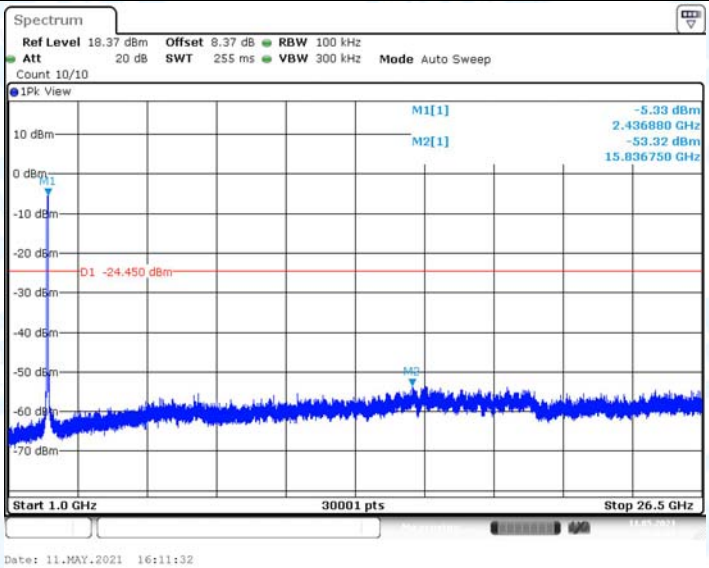

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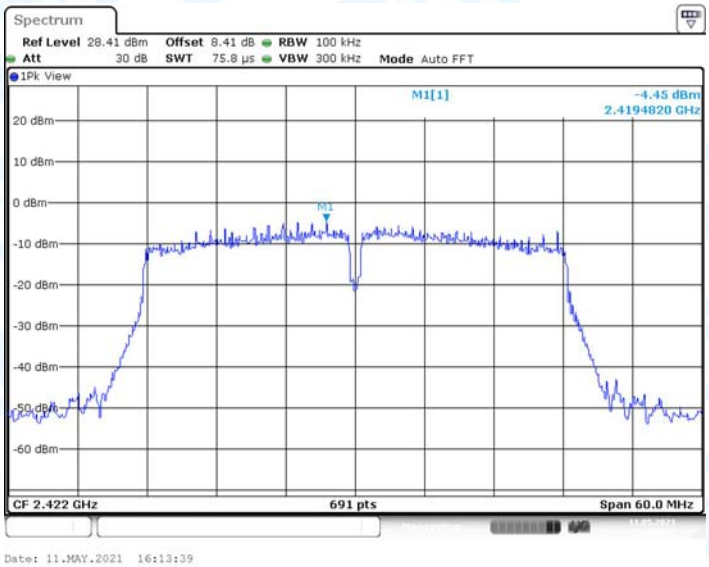
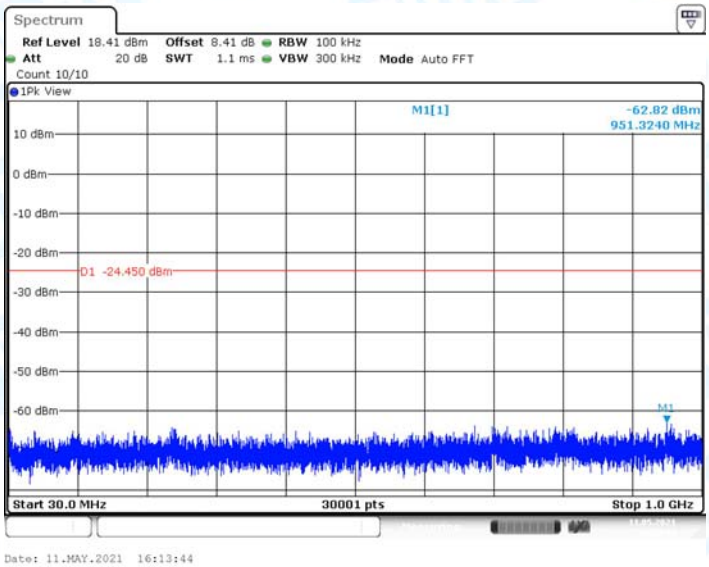


11N40MIMO_Ant2_2422_30~1000


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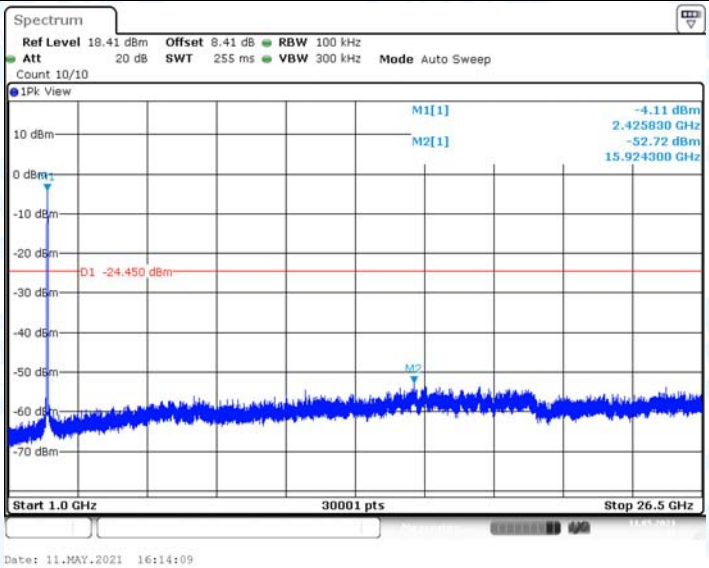
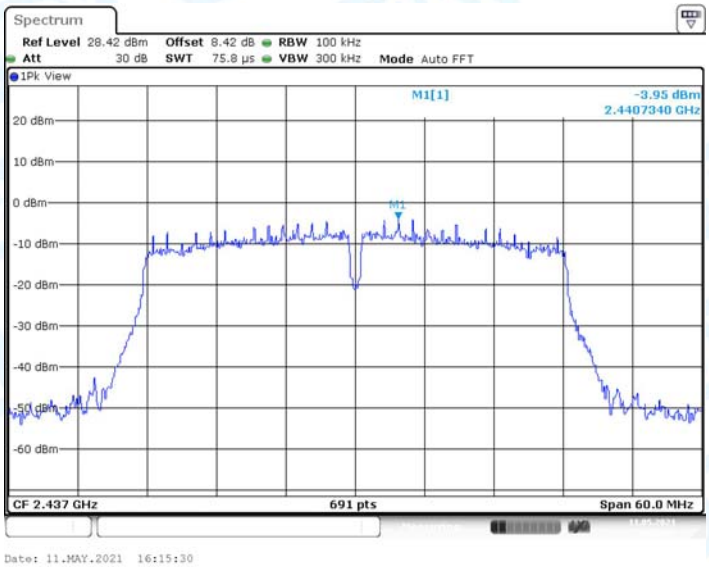


11N40MIMO_Ant1_2437_0~Reference



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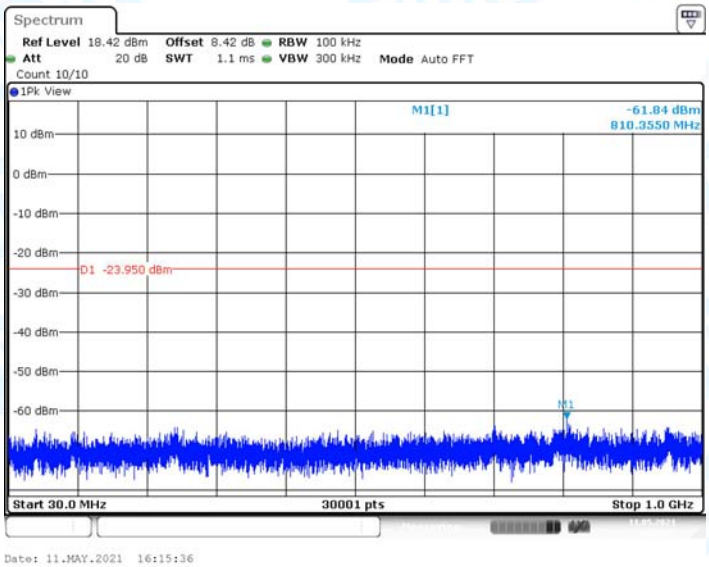

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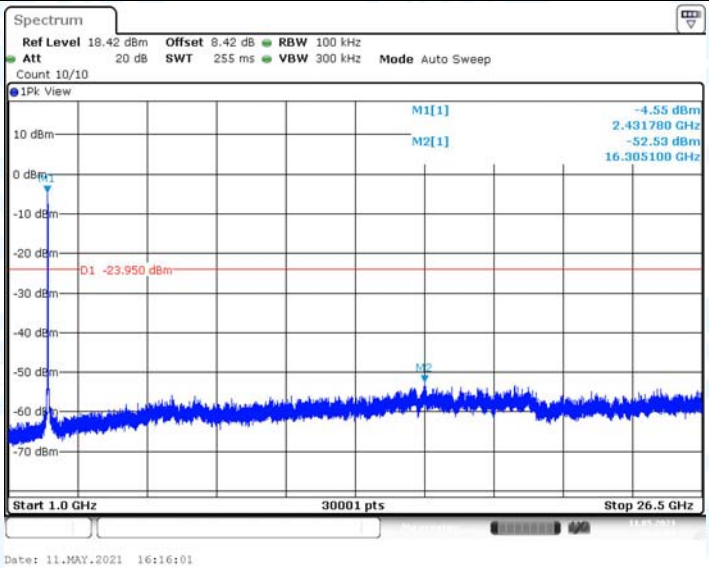

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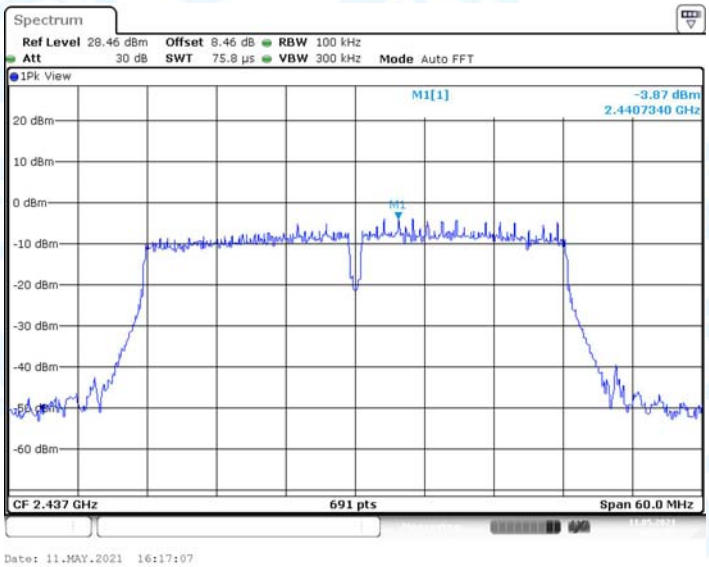
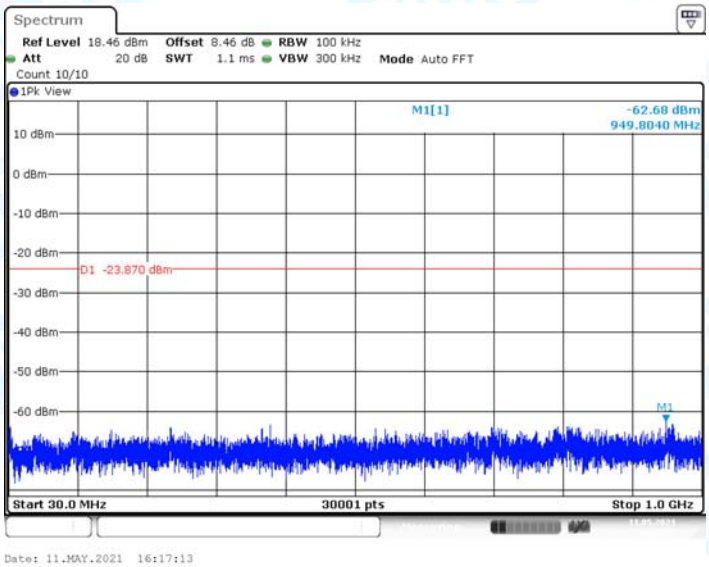


11N40MIMO_Ant2_2437_30~1000



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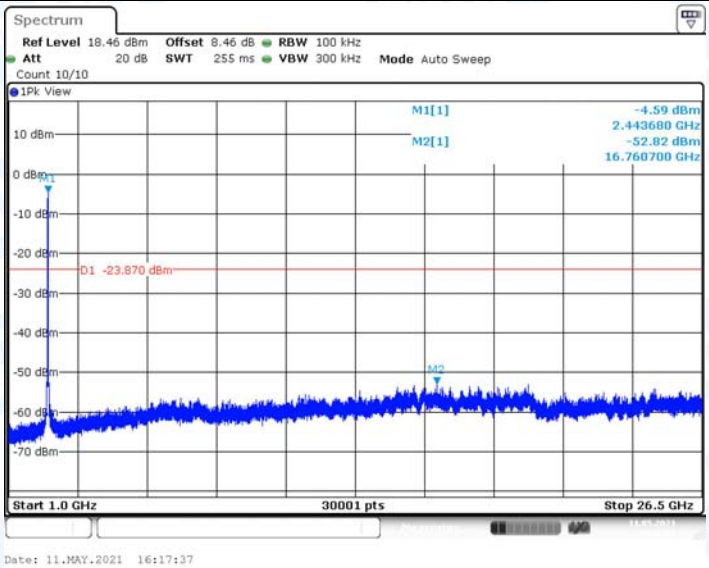

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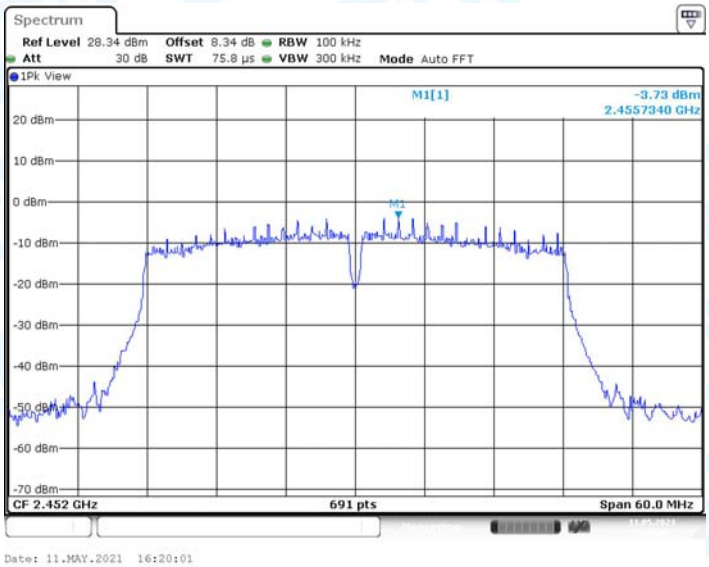

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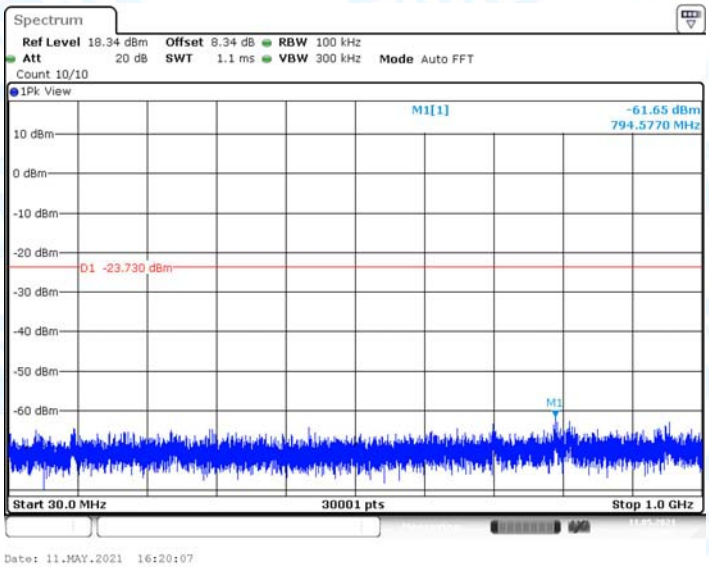

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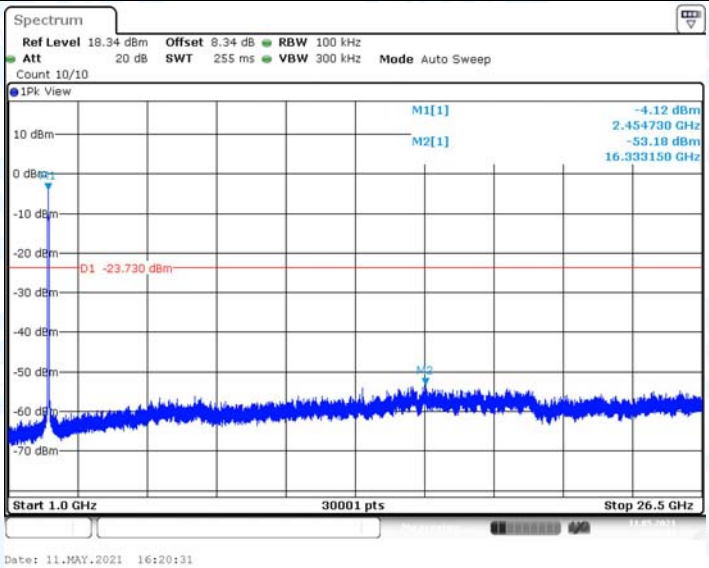

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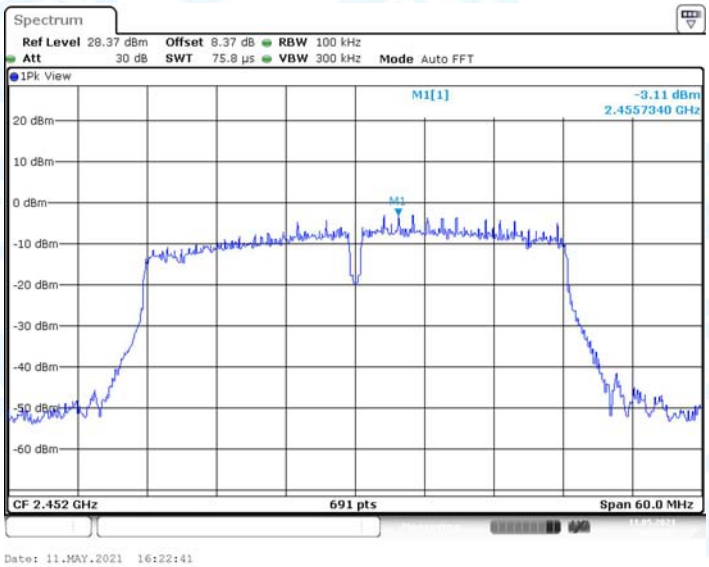

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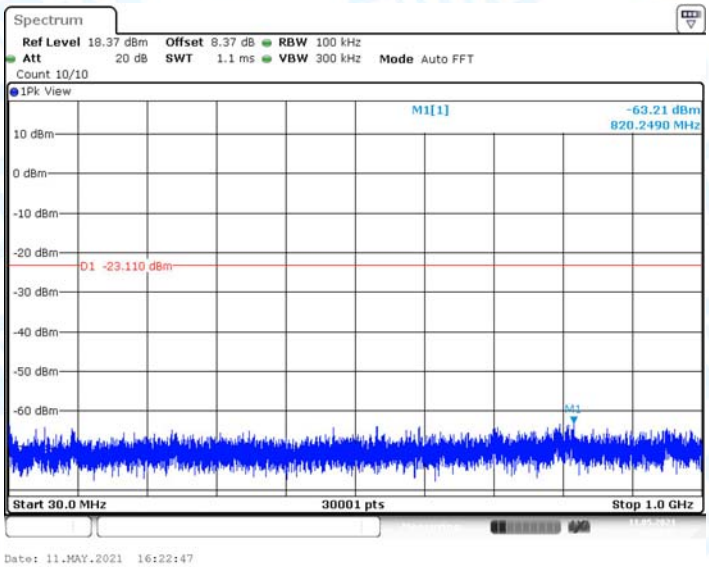

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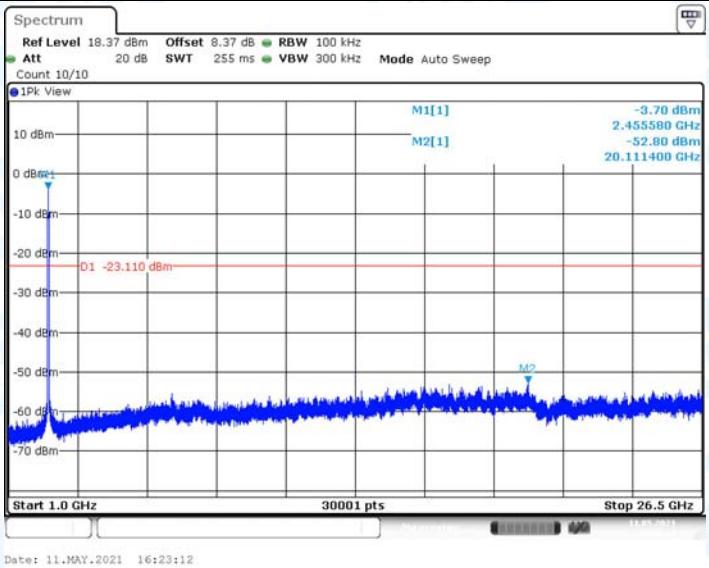

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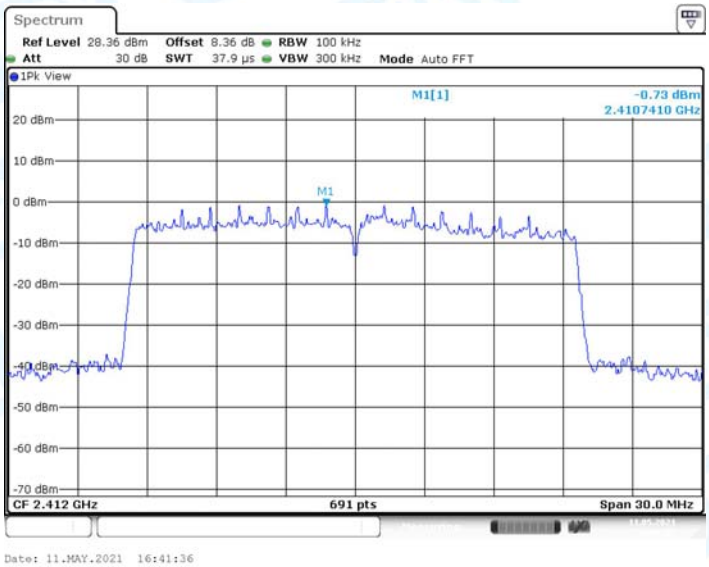

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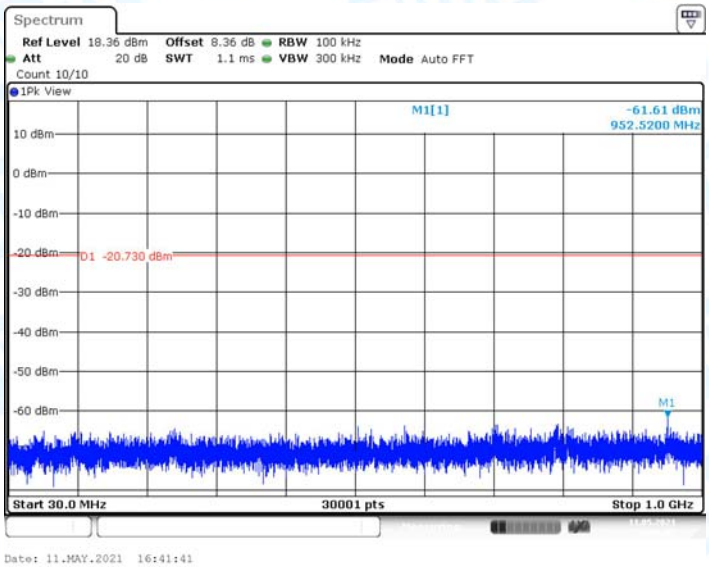
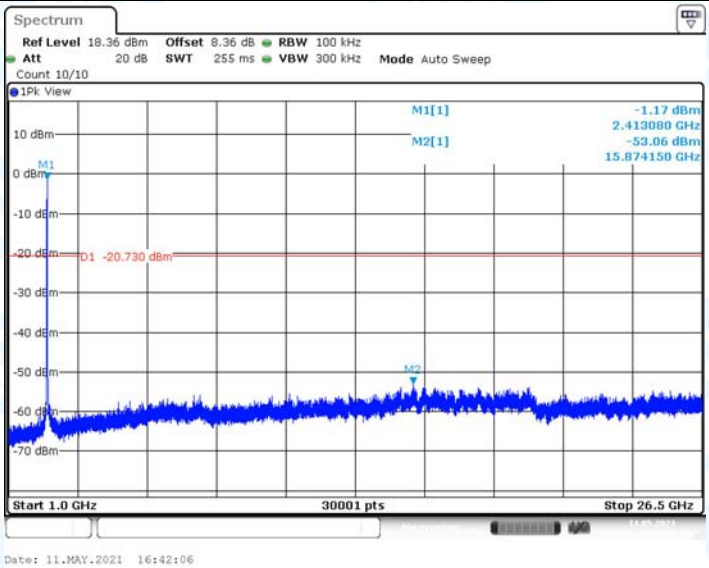


11AX20MIMO_Ant1_2412_1000~26500



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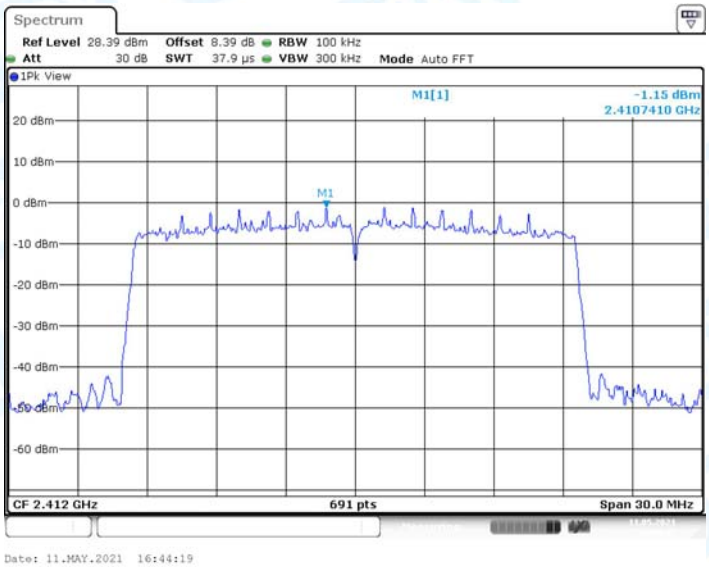
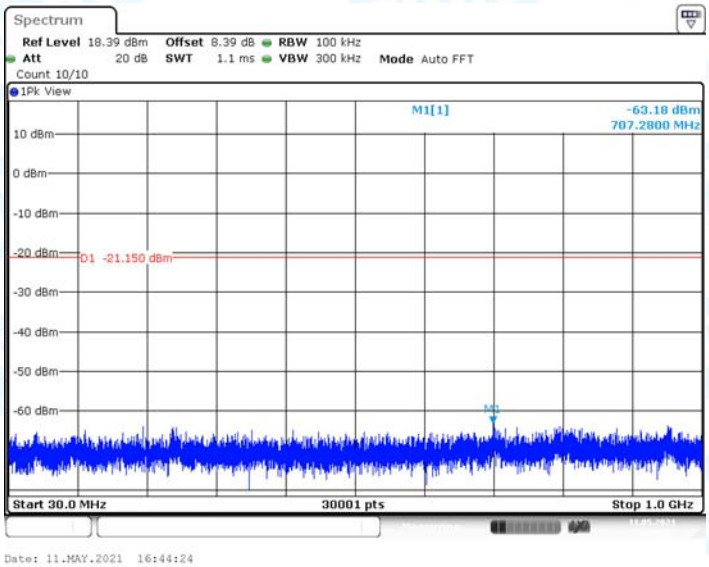


11AX20MIMO_Ant2_2412_30~1000



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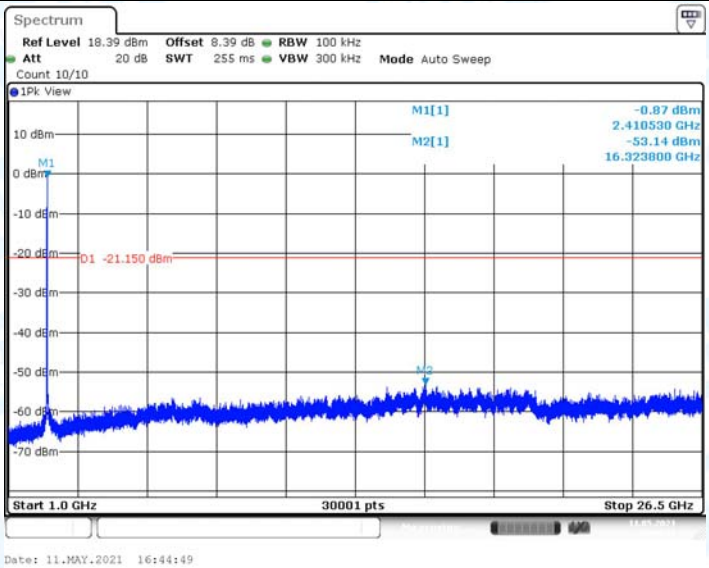

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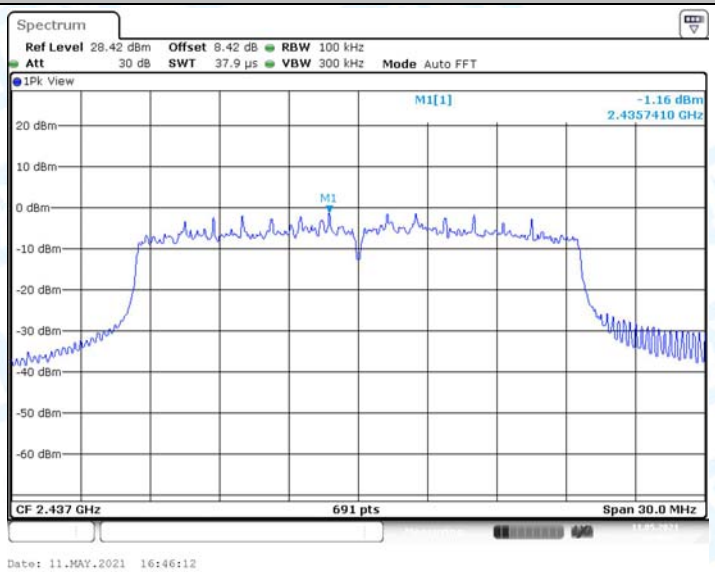

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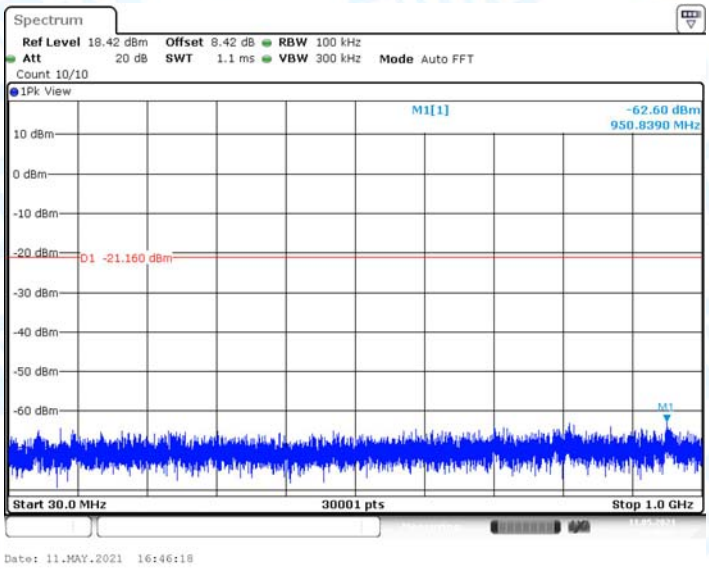
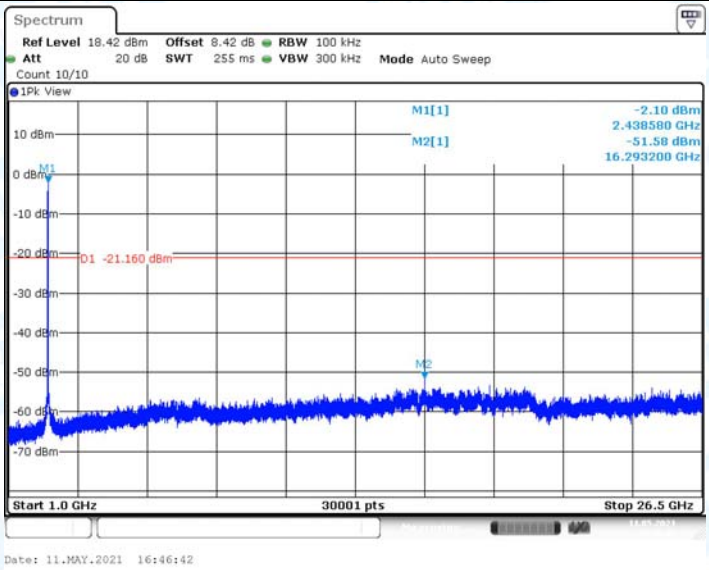


11AX20MIMO_Ant1_2437_1000~26500



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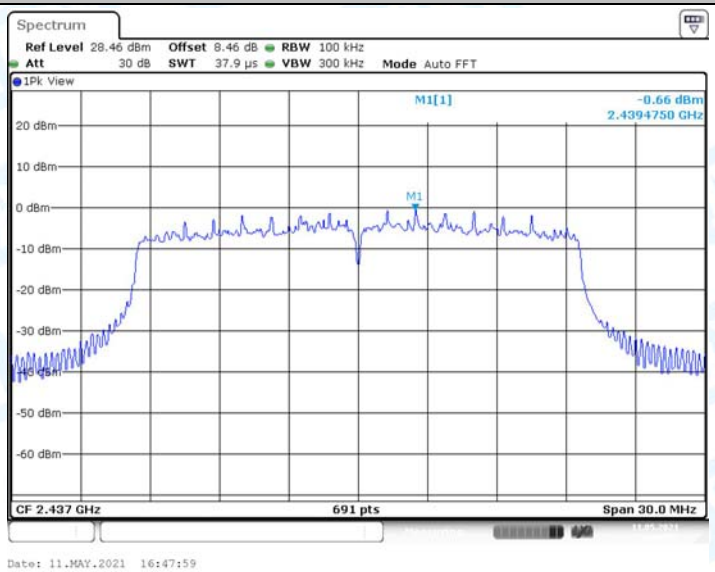

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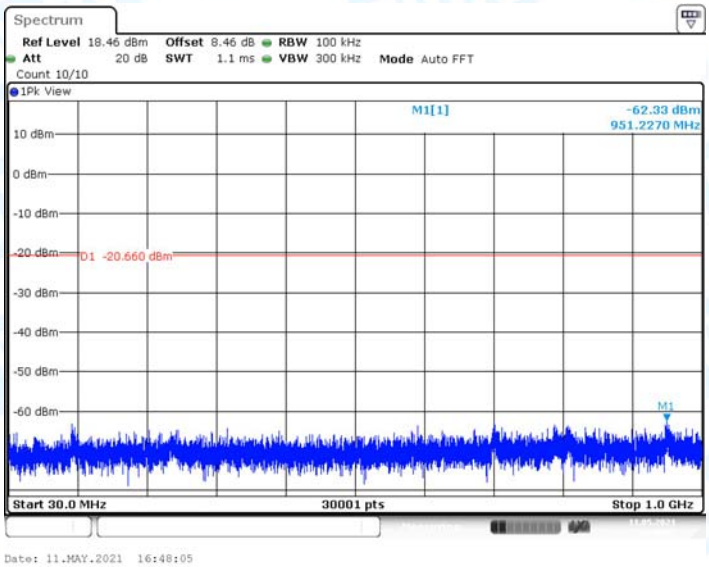
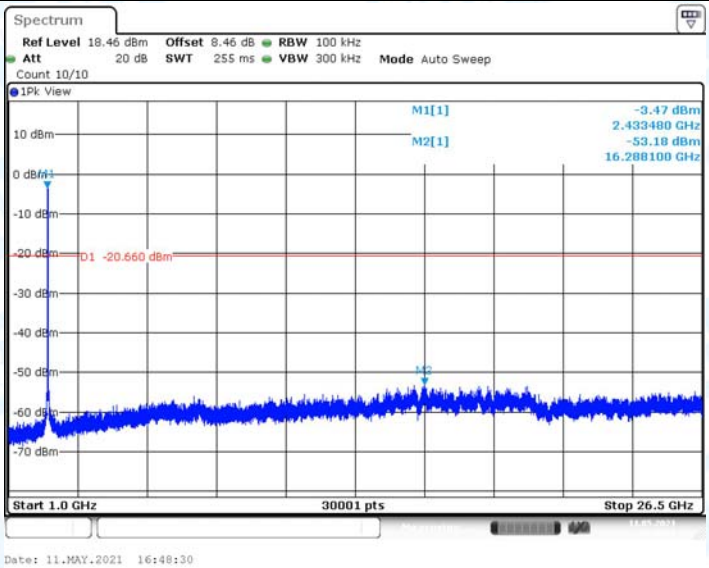


11AX20MIMO_Ant2_2437_1000~26500



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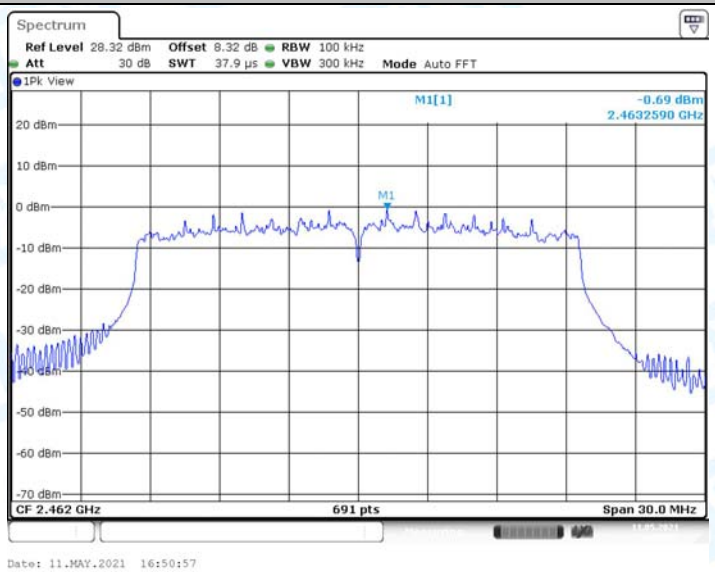
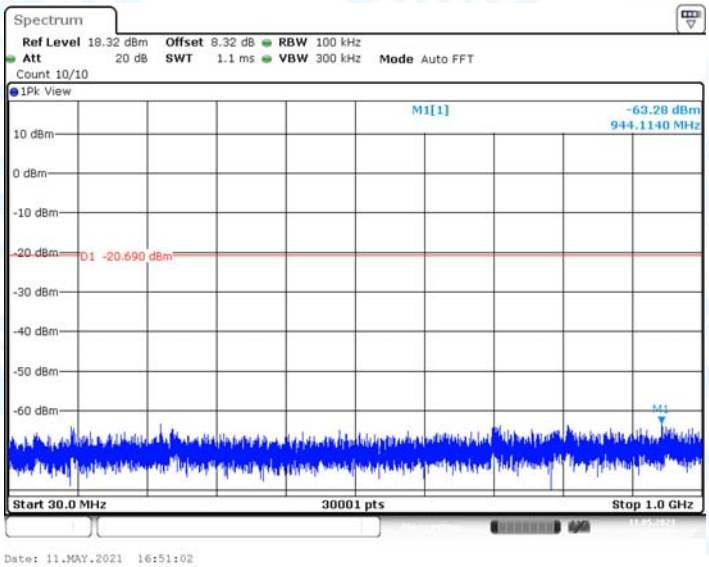
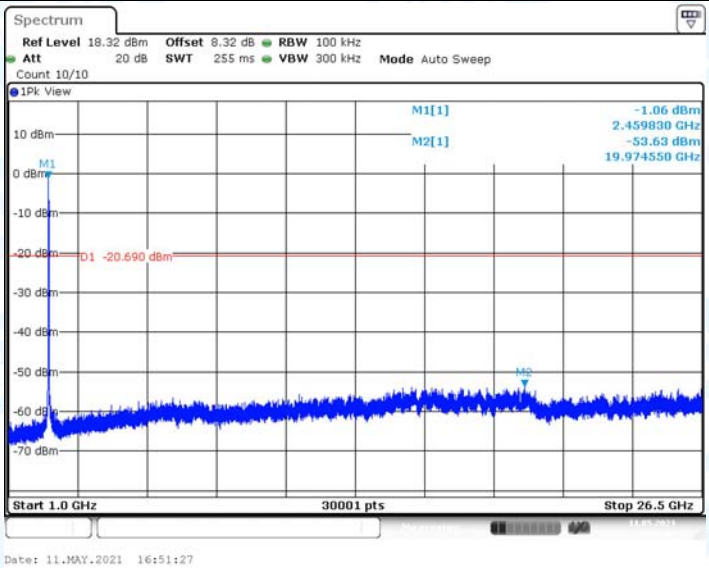


11AX20MIMO_Ant1_2462_30~1000



11AX20MIMO_Ant1_2462_1000~26500



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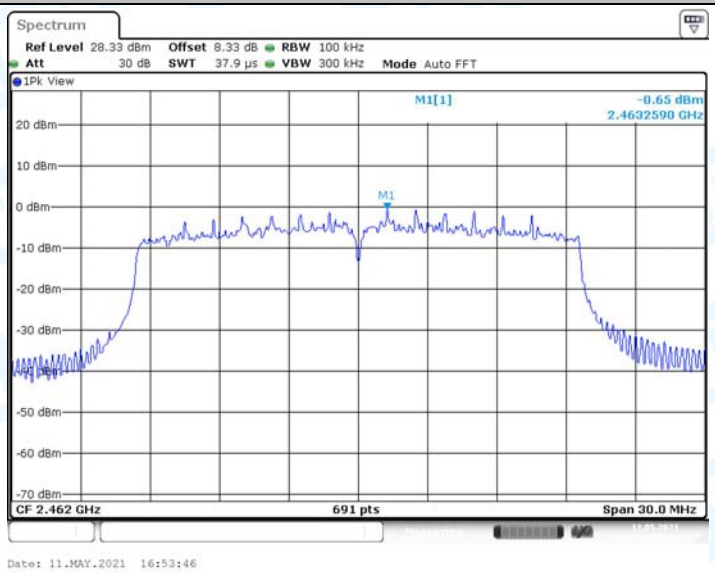
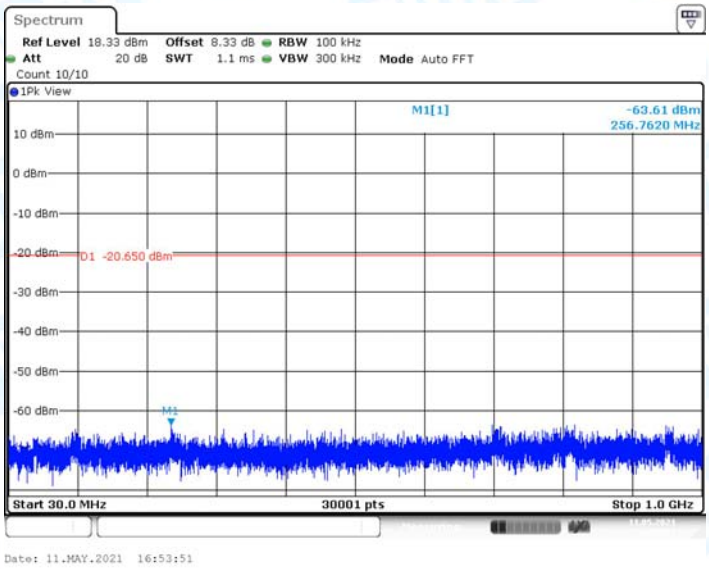


11AX20MIMO_Ant2_2462_30~1000


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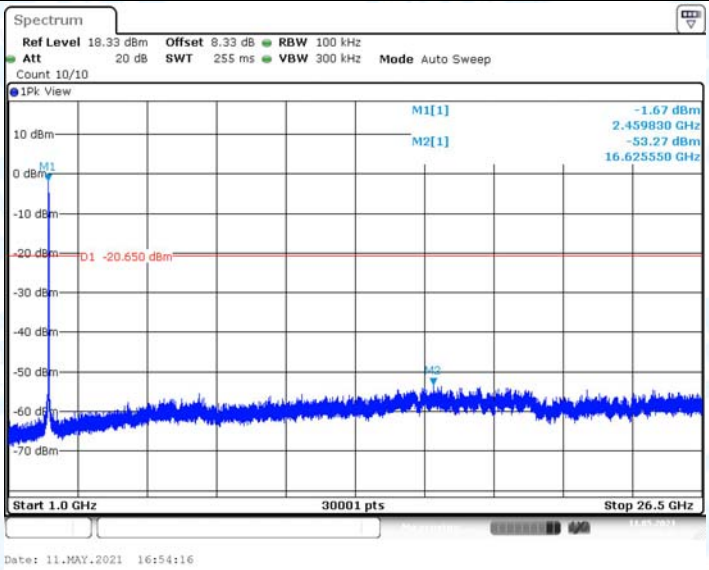

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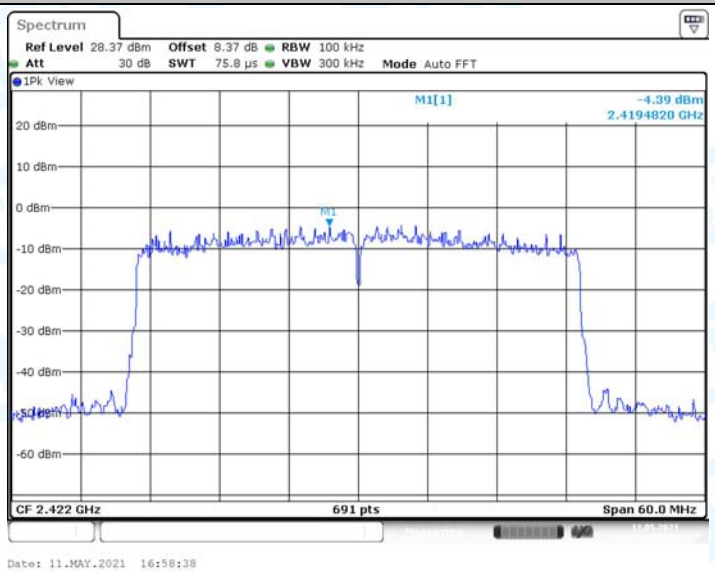

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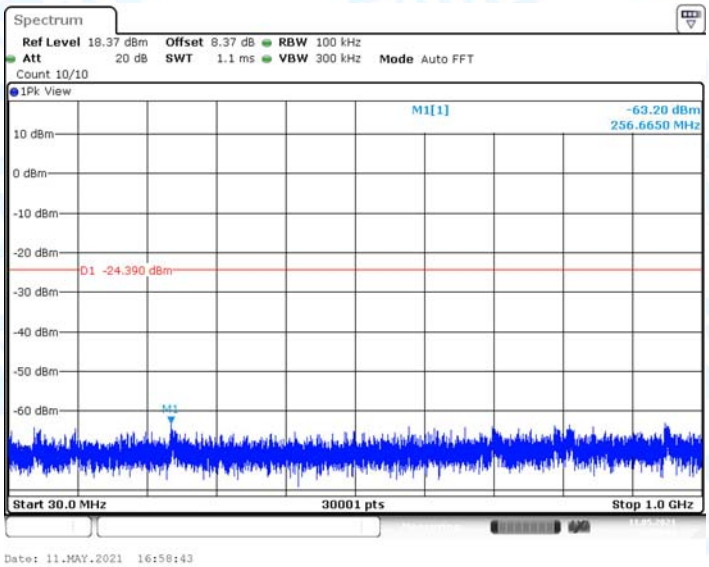

11AX40MIMO_Ant1_2422_1000~26500