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ETSI EN 300 328 V2.2.2 (2019-07)

TEST REPORT

For

SHENZHEN TENDA TECHNOLOGY CO., LTD.

6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China. 518052

Tested Model: A18 Pro
Multiple Models: A18

Report Type: Original Report	Product Type: AC1200 Dual-Band Wi-Fi Range Extender
Report Number:	2402Z107018E-22A
Report Date:	2024/12/20
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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
1.0	2402Z107018E-22A	Original Report	2024/12/20

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product Name:	AC1200 Dual-Band Wi-Fi Range Extender
EUT Model:	A18 Pro
Multiple Models:	A18
Model Difference:	Only the model names are different. Refer to Dos
Rated Input Voltage:	100-240Vac
Serial Number:	2V5L-1, 2V5L-2
EUT Received Date:	2024/11/28
EUT Received Status:	Good

Technical Specification

Operation Frequency Range (MHz):		802.11b/g/n20: 2412-2472 802.11n40: 2422-2462
RF Output Power (EIRP) (dBm):		19.95
Number of Chains	Transmit:	2
	Receive:	2
Antenna Gain (dBi)[▲]_Chain 0:		3.05
Antenna Gain (dBi)[▲]_Chain 1:		3.13
Beamforming-Antenna Gain (dB):		3
Modulation Type:		DSSS, OFDM

Objective

This report is prepared on behalf of **SHENZHEN TENDA TECHNOLOGY CO., LTD.** in accordance with ETSI EN 300 328 V2.2.2 (2019-07), Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz band; Harmonised Standard for access to radio spectrum.

The objective is to determine the compliance of EUT with ETSI EN 300 328 V2.2.2 (2019-07).

Test Methodology

All measurements contained in this report were conducted with ETSI EN 300 328 V2.2.2 (2019-07).

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.12, Pulong East 1st Road, Tangxia Town, Dongguan, Guangdong, China.

Measurement Uncertainty

Parameter	Flab	Maximum allow uncertainty
Occupied Channel Bandwidth	±5 %	±5 %
RF output power, conducted	±0.61dB	±1,5 dB
Power Spectral Density, conducted	±3 dB	±3 dB
Unwanted Emissions, conducted	±2.47dB	±3 dB
All emissions, radiated	±3.62dB	±6 dB
Temperature	±1 °C	±3 °C
Supply voltages	±0.4%	±3 %
Duty Cycle	1%	±5 %

Note: Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty. The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval.

Declarations

The information marked ▲ is provided by the applicant, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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Each test item follows the test standard(s) without deviation.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in engineering mode which was provided by manufacturer. 13 channels are provided to testing as below table:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	11	2462
5	2432	12	2467
6	2437	13	2472
7	2442	/	/

For lowest, middle and highest channel, 802.11b, 802.11g and 802.11n-HT20 modes were tested with Channel 1, 7 and 13; 802.11n-HT40 mode was tested with Channel 3, 7 and 11.

The extreme temperature test conditions which were declared by the manufacturer and the normal conditions are as below:

NT: Normal Temperature +25°C

LT: Low Temperature +0°C

HT: High Temperature +40°C

Equipment Modifications

No modification was made to the EUT tested.

EUT Exercise Software

Software "RTL819x 3.6[▲]" was used for setting device works in engineering mode, and the maximum power level was configured as following setting, which was provided by manufacturer[▲]. The worst-case data rates are determined to be as follows for each mode based upon investigation by measuring the average power and PSD across all data rates bandwidths, and modulations.

Mode	Frequency (MHz)	Data rate (Mbps)		Power level	
		Chain 0 (ANT 1)	Chain 1 (ANT 2)	Chain 0 (ANT 1)	Chain 1 (ANT 2)
802.11 b	2412	1Mbps	1Mbps	95	92
	2442	1Mbps	1Mbps	90	90
	2472	1Mbps	1Mbps	86	86
802.11 g	2412	6Mbps	6Mbps	98	95
	2442	6Mbps	6Mbps	95	92
	2472	6Mbps	6Mbps	92	90
802.11n 20	2412	HT-MCS8	HT-MCS8	83	84
	2442	HT-MCS8	HT-MCS8	78	82
	2472	HT-MCS8	HT-MCS8	75	80
802.11n 40	2422	HT-MCS8	HT-MCS8	80	84
	2442	HT-MCS8	HT-MCS8	78	82
	2462	HT-MCS8	HT-MCS8	75	81

Beamforming

Mode	Channel	Frequency (MHz)	Frequency (MHz)		Power Level	
			Chain 0 (ANT 1)	Chain 1 (ANT 2)	Chain 0 (ANT 1)	Chain 1 (ANT 2)
802.11 n20	Low	2412	HT-MCS8	HT-MCS8	69	72
	Middle	2442	HT-MCS8	HT-MCS8	65	70
	High	2472	HT-MCS8	HT-MCS8	61	68
802.11 n40	Low	2422	HT-MCS8	HT-MCS8	67	71
	Middle	2442	HT-MCS8	HT-MCS8	64	70
	High	2462	HT-MCS8	HT-MCS8	62	68

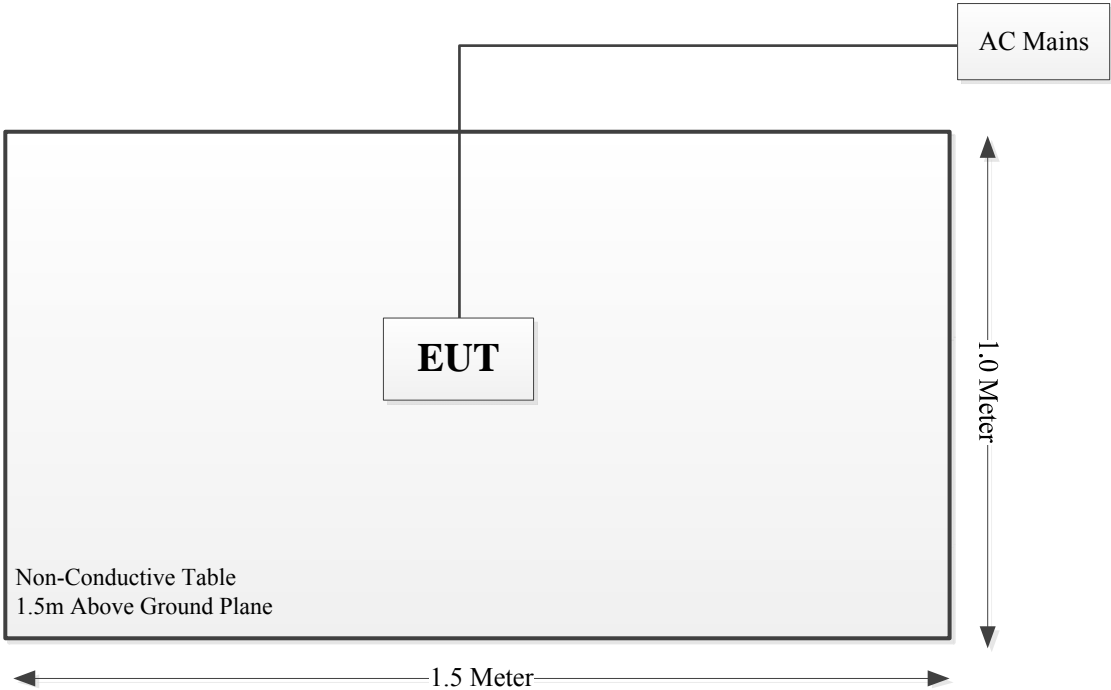
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

Support Cable List and Details

Cable Description	Shielding Cable	Ferrite Core	Length (m)	From Port	To
/	/	/	/	/	/

Block Diagram of Test Setup



Test Equipment List

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated emissions below 1GHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-2	2024/4/16	2027/4/15
Narda	Coaxial Attenuator	757C-6dB	34010	2024/4/16	2027/4/15
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2024/7/1	2025/6/30
Unknown	Coaxial Cable	C-NJNJ-50	C-1400-01	2024/7/1	2025/6/30
Sonoma	Amplifier	310N	372193	2024/8/16	2025/8/15
R&S	EMI Test Receiver	ESR3	102453	2024/8/26	2025/8/25
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Agilent	Signal Generator	E8247C	MY43321350	2024/9/5	2025/9/4
Radiated emissions above 1 GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2024/11/17	2025/11/16
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2024/9/5	2025/9/4
Agilent	Signal Generator	E8247C	MY43321350	2024/9/5	2025/9/4
AH	Preamplifier	PAM-0118P	469	2024/4/15	2025/4/14
R&S	Spectrum Analyzer	FSV40	101944	2024/9/6	2025/9/5
E-Microwave	Band Rejection Filter	OBSF-2400-2483.5-S	OE01601525	2024/2/21	2025/2/20
Micro-tronics	High Pass Filter	HPM50111	G217	2024/11/30	2025/11/29
RF conducted					
Eastsheep	Coaxial Attenuator	2W-SMA-JK-6G-10dB	F-08-EM509	2024/6/7	2025/6/6
Eastsheep	Coaxial Attenuator	2W-SMA-JK-6G-10dB	F-08-EM510	2024/6/7	2025/6/6
R&S	Wideband Radio Communication Tester	CMW500	149216	2024/9/5	2025/9/4
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2024/9/6	2025/9/5
Keysight	MXA Signal Analyzer	N9020A	MY48490106	2024/9/5	2025/9/4
Agilent	MXG Vector Signal Generator	N5182A	MY49060274	2024/9/5	2025/9/4
Agilent	MXG Analog Signal Generator	N5181A	MY48180151	2024/9/5	2025/9/4
Tonscend	RF Control Unit	JS0806-2	19G8060171	2024/9/5	2025/9/4

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Environmental Conditions

Test Site:	Radiated emissions below 1GHz	Radiated emissions above 1GHz	RF conducted
Temperature:	20.9 °C	20.5 °C	21.9~24.1°C
Relative Humidity:	30.0 %	32.0 %	48~59%
ATM Pressure:	102.5 kPa	102.3 kPa	101.6~101.7kPa
Tester:	Jayce Wang	Nat Zhou	Harper Shen
Test Date:	2024/12/19	2024/12/18	2024/12/2~2024/12/4

SUMMARY OF TEST RESULTS

SN	Rule and Clause	Description of Test	Test Result
1	EN 300 328 Clause 4.3.2.2	RF output power	Compliant
2	EN 300 328 Clause 4.3.2.3	Power Spectral Density	Compliant
3	EN 300 328 Clause 4.3.2.4	Duty cycle, Tx-Sequence, Tx-gap	Not applicable*
4	EN 300 328 Clause 4.3.2.5	Medium Utilization (MU) factor	Not applicable*
5	EN 300 328 Clause 4.3.2.6	Adaptivity	Compliant
6	EN 300 328 Clause 4.3.2.7	Occupied Channel Bandwidth	Compliant
7	EN 300 328 Clause 4.3.2.8	Transmitter unwanted emissions in the out-of-band domain	Compliant
8	EN 300 328 Clause 4.3.2.9	Transmitter unwanted emissions in the spurious domain	Compliant
9	EN 300 328 Clause 4.3.2.10	Receiver spurious emissions	Compliant
10	EN 300 328 Clause 4.3.2.11	Receiver Blocking	Compliant
11	EN 300 328 Clause 4.3.2.12	Geo-location capability	Not applicable**

Note:

The applicant declared that the equipment is adaptive equipment.

Not applicable*: The test is not applicable for adaptive equipment.

Not applicable**: The manufacturer declared the device without Geo-location capability.

1 – RF OUTPUT POWER

Definition

The RF output power is defined as the mean equivalent isotropic radiated power (e.i.r.p.) of the equipment during a transmission burst.

Limit

The RF output power for non-FHSS equipment shall be equal to or less than 20 dBm.

For Non-adaptive FHSS equipment, the manufacturer may have declared a reduced RF Output Power (see clause 5.4.1 m)) and associated Duty Cycle (see clause 5.4.1 e)) that will ensure that the equipment meets the requirement for the Medium Utilization (MU) factor further described in clause 4.3.2.5. This is verified by the conformance test referred to in clause 4.3.2.5.4.

For non-adaptive non-FHSS equipment, where the manufacturer has declared an RF output power of less than 20 dBm e.i.r.p., the RF output power shall be equal to or less than that declared value.

This limit shall apply for any combination of power level and intended antenna assembly.

Test Procedure

The test procedure shall be as follows:

Step 1:

- Use a fast power sensor suitable for 2,4 GHz and capable of minimum 1 MS/s.
 - Use the following settings:
 - Sample speed 1 MS/s or faster.
 - The samples shall represent the RMS power of the signal.
 - Measurement duration: For non-adaptive equipment: equal to the observation period defined in clause 4.3.1.3.2 or clause 4.3.2.4.2. For adaptive equipment, the measurement duration shall be long enough to ensure a minimum number of bursts (at least 10) are captured.
- For adaptive equipment, to increase the measurement accuracy, a higher number of bursts may be used.

Step 2:

- For conducted measurements on devices with one transmit chain:
 - Connect the power sensor to the transmit port, sample the transmit signal and store the raw data. Use these stored samples in all following steps.
- For conducted measurements on devices with multiple transmit chains:
 - Connect one power sensor to each transmit port for a synchronous measurement on all transmit ports.
 - Trigger the power sensors so that they start sampling at the same time. Make sure the time difference between the samples of all sensors is less than 500 ns.
 - For each individual sampling point (time domain), sum the coincident power samples of all ports and store them. Use these summed samples in all following steps.

Step 3:

- Find the start and stop times of each burst in the stored measurement samples.

The start and stop times are defined as the points where the power is at least 30 dB below the highest value of the stored samples in step 2.

In case of insufficient dynamic range, the value of 30 dB may need to be reduced appropriately.

Step 4:

- Between the start and stop times of each individual burst calculate the RMS power over the burst using the formula below. The start and stop points shall be included. Save these P_{burst} values, as well as the start and stop times for each burst.

$$P_{burst} = \frac{1}{k} \sum_{n=1}^k P_{sample}(n)$$

with 'k' being the total number of samples and 'n' the actual sample number

Step 5:

- The highest of all P_{burst} values (value "A" in dBm) will be used for maximum e.i.r.p. calculations.

Step 6:

- Add the (stated) antenna assembly gain "G" in dBi of the individual antenna.
- If applicable, add the additional beamforming gain "Y" in dB.
- If more than one antenna assembly is intended for this power setting, the maximum overall antenna gain (G or G + Y) shall be used.
- The RF Output Power (P) shall be calculated using the formula below:

$$P = A + G + Y$$

- This value, which shall comply with the limit given in clause 4.3.1.2.3 or clause 4.3.2.2.3, shall be recorded in the test report.

Test Data

Test Result: *Compliant. The test data please refer to the Appendix.*

2 - POWER SPECTRAL DENSITY

Definition

The Power Spectral Density is the mean equivalent isotropically radiated power (e.i.r.p.) spectral density in a 1 MHz bandwidth during a transmission burst.

Limit

The maximum Power Spectral Density for non-FHSS equipment is 10 dBm per MHz.

Test Procedure

The transmitter shall be connected to a spectrum analyser and the Power Spectral Density as defined in clause 4.3.2.3 shall be measured and recorded.

The test procedure shall be as follows:

Step 1:

Connect the UUT to the spectrum analyser and use the following settings:

- Start Frequency: 2 400 MHz
- Stop Frequency: 2 483.5 MHz
- Resolution BW: 10 kHz
- Video BW: 30 kHz
- Sweep Points: > 8 350; for spectrum analysers not supporting this number of sweep points, the frequency band may be segmented

NOTE: For spectrum analysers not supporting this number of sweep points, the frequency band may be segmented.

- Detector: RMS
- Trace Mode: Max Hold
- Sweep time: For non-continuous transmissions: $2 \times \text{Channel Occupancy Time} \times \text{number of sweep points}$
For continuous transmissions: 10 s; the sweep time may be increased further until a value where the sweep time has no impact on the RMS value of the signal.

For non-continuous signals, wait for the trace to stabilize. Save the data (trace data) set to a file.

Step 2:

For conducted measurements on smart antenna systems using either operating mode 2 or operating mode 3 (see clause 5.3.2.2), repeat the measurement for each of the transmit ports. For each sampling point (frequency domain), add up the coincident power values (in mW) for the different transmit chains and use this as the new data set.

Step 3:

Add up the values for power for all the samples in the file using the formula below.

$$P_{Sum} = \frac{1}{k} \sum_{n=1}^k P_{sample}(n)$$

with 'k' being the total number of samples and 'n' the actual sample number

Step 4:

Normalize the individual values for power (in dBm) so that the sum is equal to the RF Output Power (e.i.r.p.) measured in clause 5.3.2 and save the corrected data. The following formulas can be used:

$$C_{Corr} = P_{Sum} - P_{e.i.r.p}$$

$$P_{Samplecorr}(n) = P_{Sample}(n) - C_{Corr}$$

with 'n' being the actual sample number

Step 5:

Starting from the first sample $P_{Samplecorr}(n)$ (lowest frequency), add up the power (in mW) of the following samples representing a 1 MHz segment and record the results for power and position (i.e. sample #1 to sample #100). This is the Power Spectral Density (e.i.r.p.) for the first 1 MHz segment which shall be recorded.

Step 6:

Shift the start point of the samples added up in step 5 by one sample and repeat the procedure in step 5 (i.e. sample #2 to sample #101).

Step 7:

Repeat step 6 until the end of the data set and record the Power Spectral Density values for each of the 1 MHz segments.

From all the recorded results, the highest value is the maximum Power Spectral Density for the UUT. This value, which shall comply with the limit given in clause 4.3.2.3.3, shall be recorded in the test report.

Test Data

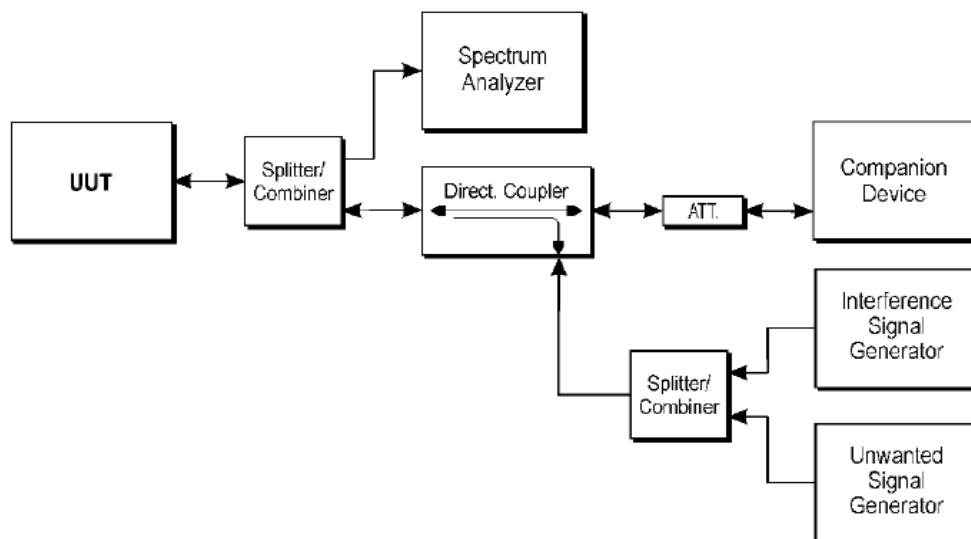
Test Result: *Compliant. The test data please refer to the Appendix.*

5 – ADAPTIVITY

Definition

Adaptive non-FHSS using LBT is a mechanism by which non-FHSS adaptive equipment avoids transmissions in a channel in the presence of an interfering signal in that channel. This mechanism shall operate as intended in the presence of an unwanted signal on frequencies other than those of the operating band.

Test Setup Block Diagram



Test Procedure

The measurement procedure refer to ETSI EN 300 328 V2.2.2 (2019-07) §5.4.6

Test Data

Test Result: Compliant. The test data please refer to the Appendix.

6 – OCCUPIED CHANNEL BANDWIDTH

Definition

The Occupied Channel Bandwidth is the bandwidth that contains 99 % of the power of the signal.

Limit

The Occupied Channel Bandwidth shall fall completely within the band given in clause 1.

In addition, for non-adaptive equipment using wide band modulations other than FHSS and with e.i.r.p greater than 10 dBm, the occupied channel bandwidth shall be less than 20 MHz.

Test Procedure

The measurement procedure shall be as follows:

Step 1:

Connect the UUT to the spectrum analyser and use the following settings:

- Centre Frequency: The centre frequency of the channel under test
- Resolution BW: $\sim 1\%$ of the span without going below 1%
- Video BW: $3 \times \text{RBW}$
- Frequency Span for other types of equipment: $2 \times \text{Nominal Channel Bandwidth}$
- Detector Mode: RMS
- Trace Mode: Max Hold
- Sweep time: 1 s

Step 2:

Wait for the trace to stabilize.

Find the peak value of the trace and place the analyser marker on this peak.

Step 3:

Use the 99 % bandwidth function of the spectrum analyser to measure the Occupied Channel Bandwidth of the UUT. This value shall be recorded.

NOTE: Make sure that the power envelope is sufficiently above the noise floor of the analyser to avoid the noise signals left and right from the power envelope being taken into account by this measurement.

Test Data

Test Result: *Compliant. The test data please refer to the Appendix.*

7 – TRANSMITTER UNWANTED EMISSION IN THE OUT-OF-BAND DOMAIN

Definition

According to ETSI EN 300 328 V2.2.2 (2019-07) §4.3.2.8.2, Transmitter unwanted emissions in the out-of-band domain are emissions when the equipment is in Transmit mode, on frequencies immediately outside the allocated band, but excluding unwanted emissions in the spurious domain.

Limit

The transmitter unwanted emissions in the out-of-band domain shall not exceed the values provided by the mask in figure 3.

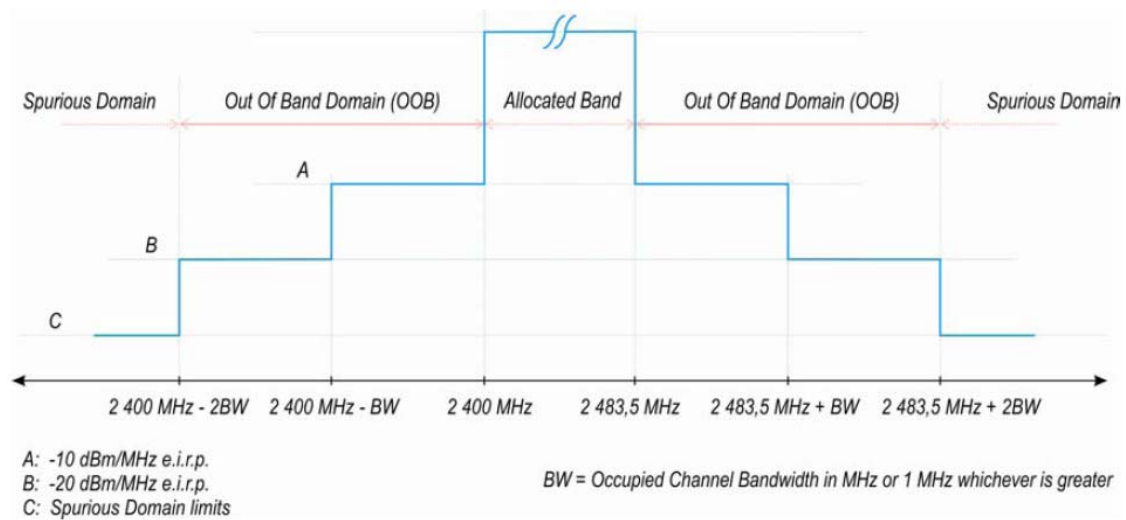


Figure 3: Transmit mask

Test Procedure

According to ETSI EN 300 328 V2.2.2 (2019-07) §5.4.8

Test Data

Test Result: Compliant. The test data please refer to the Appendix.

8 – TRANSMITTER UNWANTED EMISSION IN THE SPURIOUS DOMAIN

Definition

Transmitter unwanted emissions in the spurious domain are emissions outside the allocated band and outside the Out-of-band Domain as indicated in figure 3 when the equipment is in Transmit mode.

Limit

The transmitter unwanted emissions in the spurious domain shall not exceed the values given in the following table. In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and as e.i.r.p. for emissions above 1 GHz.

Transmitter limits for spurious emissions

Frequency range	Maximum power	Bandwidth
30 MHz to 47 MHz	-36 dBm	100 kHz
47 MHz to 74 MHz	-54 dBm	100 kHz
74 MHz to 87,5 MHz	-36 dBm	100 kHz
87,5 MHz to 118 MHz	-54 dBm	100 kHz
118 MHz to 174 MHz	-36 dBm	100 kHz
174 MHz to 230 MHz	-54 dBm	100 kHz
230 MHz to 470 MHz	-36 dBm	100 kHz
470 MHz to 694 MHz	-54 dBm	100 kHz
694 MHz to 1 GHz	-36 dBm	100 kHz
1 GHz to 12,75 GHz	-30 dBm	1 MHz

Test Procedure

According to ETSI EN 300 328 V2.2.2 (2019-07) §5.4.9

Test Data

Test Result: Compliant. Pre-scan all modes, worst case please refer to following tables.

802.11 b_low channel_Chain 0**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	31.28	-76.07	0.00	0.26	-76.33	-54.00	22.33
640.38	V	42.16	-68.13	0.00	0.26	-68.39	-54.00	14.39
4824.00	H	63.59	-53.29	14.20	1.55	-40.64	-30.00	10.64
4824.00	V	63.29	-53.44	14.20	1.55	-40.79	-30.00	10.79
7236.00	H	50.11	-60.09	13.01	1.59	-48.67	-30.00	18.67
7236.00	V	50.49	-59.85	13.01	1.59	-48.43	-30.00	18.43

802.11 b_high channel_Chain 0**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
608.68	H	32.26	-75.25	0.00	0.24	-75.49	-54.00	21.49
640.38	V	44.69	-65.60	0.00	0.26	-65.86	-54.00	11.86
4944.00	H	64.26	-52.89	13.94	1.45	-40.40	-30.00	10.40
4944.00	V	63.57	-52.91	13.94	1.45	-40.42	-30.00	10.42
7416.00	H	50.48	-58.97	13.28	1.41	-47.10	-30.00	17.10
7416.00	V	50.00	-59.83	13.28	1.41	-47.96	-30.00	17.96

802.11 g_low channel_Chain 0**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.32	H	34.65	-72.70	0.00	0.26	-72.96	-54.00	18.96
640.59	V	42.32	-67.97	0.00	0.26	-68.23	-54.00	14.23
4824.00	H	63.26	-53.62	14.20	1.55	-40.97	-30.00	10.97
4824.00	V	63.48	-53.25	14.20	1.55	-40.60	-30.00	10.60
7236.00	H	50.48	-59.72	13.01	1.59	-48.30	-30.00	18.30
7236.00	V	50.22	-60.12	13.01	1.59	-48.70	-30.00	18.70

802.11 g_high channel_Chain 0**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
608.40	H	35.29	-72.23	0.00	0.24	-72.47	-54.00	18.47
641.32	V	43.15	-67.13	0.00	0.26	-67.39	-54.00	13.39
4944.00	H	64.62	-52.53	13.94	1.45	-40.04	-30.00	10.04
4944.00	V	62.59	-53.89	13.94	1.45	-41.40	-30.00	11.40
7416.00	H	50.08	-59.37	13.28	1.41	-47.50	-30.00	17.50
7416.00	V	50.66	-59.17	13.28	1.41	-47.30	-30.00	17.30

802.11 b_low channel_Chain 1**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
608.49	H	33.65	-73.87	0.00	0.24	-74.11	-54.00	20.11
640.61	V	43.05	-67.24	0.00	0.26	-67.50	-54.00	13.50
4824.00	H	61.32	-55.56	14.20	1.55	-42.91	-30.00	12.91
4824.00	V	63.99	-52.74	14.20	1.55	-40.09	-30.00	10.09
7236.00	H	50.84	-59.36	13.01	1.59	-47.94	-30.00	17.94
7236.00	V	50.35	-59.99	13.01	1.59	-48.57	-30.00	18.57

802.11 b_high channel_Chain 1**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	33.26	-74.09	0.00	0.26	-74.35	-54.00	20.35
640.61	V	43.62	-66.67	0.00	0.26	-66.93	-54.00	12.93
4944.00	H	64.18	-52.97	13.94	1.45	-40.48	-30.00	10.48
4944.00	V	64.99	-51.49	13.94	1.45	-39.00	-30.00	9.00
7416.00	H	50.48	-58.97	13.28	1.41	-47.10	-30.00	17.10
7416.00	V	50.65	-59.18	13.28	1.41	-47.31	-30.00	17.31

802.11 g_low channel_Chain 1**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
608.49	H	35.84	-71.68	0.00	0.24	-71.92	-54.00	17.92
640.61	V	44.74	-65.55	0.00	0.26	-65.81	-54.00	11.81
4824.00	H	64.29	-52.59	14.20	1.55	-39.94	-30.00	9.94
4824.00	V	64.18	-52.55	14.20	1.55	-39.90	-30.00	9.90
7236.00	H	50.62	-59.58	13.01	1.59	-48.16	-30.00	18.16
7236.00	V	50.32	-60.02	13.01	1.59	-48.60	-30.00	18.60

802.11 g_high channel_Chain 1**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	34.98	-72.37	0.00	0.26	-72.63	-54.00	18.63
640.61	V	43.65	-66.64	0.00	0.26	-66.90	-54.00	12.90
4944.00	H	63.98	-53.17	13.94	1.45	-40.68	-30.00	10.68
4944.00	V	63.78	-52.70	13.94	1.45	-40.21	-30.00	10.21
7416.00	H	50.49	-58.96	13.28	1.41	-47.09	-30.00	17.09
7416.00	V	50.22	-59.61	13.28	1.41	-47.74	-30.00	17.74

802.11 n20_low channel_MIMO**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	33.41	-73.94	0.00	0.26	-74.20	-54.00	20.20
640.32	V	45.16	-65.13	0.00	0.26	-65.39	-54.00	11.39
4824.00	H	64.26	-52.62	14.20	1.55	-39.97	-30.00	9.97
4824.00	V	65.29	-51.44	14.20	1.55	-38.79	-30.00	8.79
7236.00	H	52.35	-57.85	13.01	1.59	-46.43	-30.00	16.43
7236.00	V	51.74	-58.60	13.01	1.59	-47.18	-30.00	17.18

802.11 n20_high channel_MIMO**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
608.59	H	33.40	-74.12	0.00	0.24	-74.36	-54.00	20.36
640.32	V	45.82	-64.47	0.00	0.26	-64.73	-54.00	10.73
4944.00	H	64.52	-52.63	13.94	1.45	-40.14	-30.00	10.14
4944.00	V	63.59	-52.89	13.94	1.45	-40.40	-30.00	10.40
7416.00	H	51.20	-58.25	13.28	1.41	-46.38	-30.00	16.38
7416.00	V	52.48	-57.35	13.28	1.41	-45.48	-30.00	15.48

802.11 n40_low channel_MIMO**2422 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
607.49	H	34.18	-73.34	0.00	0.24	-73.58	-54.00	19.58
640.58	V	44.57	-65.72	0.00	0.26	-65.98	-54.00	11.98
4844.00	H	64.59	-52.25	14.12	1.53	-39.66	-30.00	9.66
4844.00	V	64.18	-52.28	14.12	1.53	-39.69	-30.00	9.69
7266.00	H	52.32	-57.76	13.10	1.56	-46.22	-30.00	16.22
7266.00	V	52.48	-57.78	13.10	1.56	-46.24	-30.00	16.24

802.11 n40_high channel_MIMO**2462 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.53	H	35.29	-72.06	0.00	0.26	-72.32	-54.00	18.32
640.61	V	44.32	-65.97	0.00	0.26	-66.23	-54.00	12.23
4924.00	H	63.59	-53.36	13.92	1.46	-40.90	-30.00	10.90
4924.00	V	64.48	-51.65	13.92	1.46	-39.19	-30.00	9.19
7386.00	H	51.56	-58.02	13.29	1.44	-46.17	-30.00	16.17
7386.00	V	52.30	-57.62	13.29	1.44	-45.77	-30.00	15.77

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

9 – RECEIVER SPURIOUS EMISSIONS

Definition

Receiver spurious emissions are emissions at any frequency when the equipment is in receive mode.

Limit

The receiver spurious emissions shall not exceed the values given in the following table.

In case of equipment with antenna connectors, these limits apply to emissions at the antenna port (conducted). For emissions radiated by the cabinet or emissions radiated by integral antenna equipment (without antenna connectors), these limits are e.r.p. for emissions up to 1 GHz and e.i.r.p. for emissions above 1 GHz.

Spurious emission limits for receivers

Frequency range	Maximum power	Bandwidth
30 MHz to 1 GHz	-57 dBm	100 kHz
1 GHz to 12,75 GHz	-47 dBm	1 MHz

Test Procedure

According to ETSI EN 300 328 V2.2.2 (2019-07) §5.4.10

Test Data

Test Result: Compliant. Pre-scan all modes, worst case please refer to following tables.

802.11 b Low channel Chain 0 2412 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
670.45	H	33.26	-73.93	0.00	0.28	-74.21	-57.00	17.21
640.61	V	44.16	-66.13	0.00	0.26	-66.39	-57.00	9.39
1659.62	H	50.35	-74.61	10.52	0.72	-64.81	-47.00	17.81
1548.50	V	50.49	-75.86	9.79	1.03	-67.10	-47.00	20.10

802.11 b High channel Chain 0 2472 MHz

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	34.62	-72.73	0.00	0.26	-72.99	-57.00	15.99
640.61	V	43.22	-67.07	0.00	0.26	-67.33	-57.00	10.33
1326.29	H	50.84	-73.68	8.48	1.19	-66.39	-47.00	19.39
1487.65	V	50.62	-75.43	9.44	1.33	-67.32	-47.00	20.32

802.11 g Low channel Chain 0**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
670.32	H	34.25	-72.94	0.00	0.28	-73.22	-57.00	16.22
640.32	V	46.29	-64.00	0.00	0.26	-64.26	-57.00	7.26
1295.62	H	50.48	-74.12	8.26	1.19	-67.05	-47.00	20.05
1338.95	V	50.08	-75.17	8.57	1.19	-67.79	-47.00	20.79

802.11 g High channel Chain 0**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	33.48	-73.87	0.00	0.26	-74.13	-57.00	17.13
640.61	V	45.29	-65.00	0.00	0.26	-65.26	-57.00	8.26
1748.59	H	50.44	-74.10	10.95	0.72	-63.87	-47.00	16.87
1986.20	V	50.49	-75.11	11.97	1.11	-64.25	-47.00	17.25

802.11 b Low channel Chain 1**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
607.81	H	33.65	-73.87	0.00	0.24	-74.11	-57.00	17.11
640.61	V	44.18	-66.11	0.00	0.26	-66.37	-57.00	9.37
1598.65	H	50.84	-75.04	10.09	0.69	-65.64	-47.00	18.64
1447.62	V	50.63	-74.85	9.24	1.27	-66.88	-47.00	19.88

802.11 b High channel Chain 1**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
694.36	H	33.05	-74.02	0.00	0.30	-74.32	-57.00	17.32
640.38	V	45.05	-65.24	0.00	0.26	-65.50	-57.00	8.50
1874.95	H	50.74	-72.89	11.62	0.93	-62.20	-47.00	15.20
1659.20	V	50.39	-75.17	10.51	0.72	-65.38	-47.00	18.38

802.11 g Low channel Chain 1**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
607.81	H	34.18	-73.34	0.00	0.24	-73.58	-57.00	16.58
640.61	V	44.17	-66.12	0.00	0.26	-66.38	-57.00	9.38
1549.85	H	50.54	-75.47	9.80	1.02	-66.69	-47.00	19.69
1325.08	V	50.26	-75.09	8.48	1.19	-67.80	-47.00	20.80

802.11 g_High channel_Chain 1**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
694.36	H	33.29	-73.78	0.00	0.30	-74.08	-57.00	17.08
640.38	V	45.74	-64.55	0.00	0.26	-64.81	-57.00	7.81
1594.28	H	50.19	-75.71	10.07	0.72	-66.36	-47.00	19.36
1388.54	V	50.18	-74.70	8.92	1.20	-66.98	-47.00	19.98

802.11 n20_Low channel_MIMO**2412 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
670.48	H	34.90	-72.29	0.00	0.28	-72.57	-57.00	15.57
640.59	V	44.15	-66.14	0.00	0.26	-66.40	-57.00	9.40
1666.29	H	50.84	-74.01	10.56	0.73	-64.18	-47.00	17.18
1325.80	V	50.24	-75.11	8.48	1.19	-67.82	-47.00	20.82

802.11 n20_High channel_MIMO**2472 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
640.61	H	36.29	-71.06	0.00	0.26	-71.32	-57.00	14.32
640.61	V	45.18	-65.11	0.00	0.26	-65.37	-57.00	8.37
1326.20	H	50.74	-73.78	8.48	1.19	-66.49	-47.00	19.49
1549.87	V	50.54	-75.81	9.80	1.02	-67.03	-47.00	20.03

802.11 n40_Low channel_MIMO**2422 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
607.81	H	34.15	-73.37	0.00	0.24	-73.61	-57.00	16.61
640.61	V	44.70	-65.59	0.00	0.26	-65.85	-57.00	8.85
1659.32	H	50.65	-74.31	10.52	0.72	-64.51	-47.00	17.51
1847.52	V	50.77	-73.73	11.43	0.84	-63.14	-47.00	16.14

802.11 n40 High channel MIMO**2462 MHz**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
694.36	H	34.26	-72.81	0.00	0.30	-73.11	-57.00	16.11
640.38	V	44.08	-66.21	0.00	0.26	-66.47	-57.00	9.47
1395.44	H	50.87	-73.35	8.97	1.20	-65.58	-47.00	18.58
1748.62	V	50.66	-74.48	10.95	0.72	-64.25	-47.00	17.25

Note 1: The unit of antenna gain is dBd for frequency below 1GHz and is dBi for frequency above 1GHz.

Note 2:

Absolute Level = Substituted Level - Cable loss + Antenna Gain

Margin = Limit- Absolute Level

10 - RECEIVER BLOCKING

Definition

Receiver blocking is a measure of the ability of the equipment to receive a wanted signal on its operating channel without exceeding a given degradation due to the presence of an unwanted input signal (blocking signal) on frequencies other than those of the operating band and spurious responses.

Limit

For equipment that supports a PER or FER test to be performed, the minimum performance criterion shall be a PER or FER less than or equal to 10 %.

For equipment that does not support a PER or a FER test to be performed, the minimum performance criterion shall be no loss of the wireless transmission function needed for the intended use of the equipment.

While maintaining the minimum performance criteria as defined in clause 4.3.2.11.3, the blocking levels at specified frequency offsets shall be equal to or greater than the limits defined for the applicable receiver category provided in table 14, table 15 or table 16.

Table 14: Receiver Blocking parameters for Receiver Category 1 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 4)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 4)	Type of blocking signal
$(-133 \text{ dBm} + 10 \times \log_{10}(\text{OCBW}))$ or -68 dBm whichever is less (see note 2)	2 380 2 504	-34	CW
$(-139 \text{ dBm} + 10 \times \log_{10}(\text{OCBW}))$ or -74 dBm whichever is less (see note 3)	2 300 2 330 2 360 2 524 2 584 2 674		
NOTE 1: OCBW is in Hz.			
NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to $P_{\min} + 26 \text{ dB}$ where P_{\min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.			
NOTE 3: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to $P_{\min} + 20 \text{ dB}$ where P_{\min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.			
NOTE 4: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.			

Table 15: Receiver Blocking parameters receiver Category 2 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
$(-139 \text{ dBm} + 10 \times \log_{10}(\text{OCBW}) + 10 \text{ dB})$ or $(-74 \text{ dBm} + 10 \text{ dB})$ whichever is less (see note 2)	2 380 2 504 2 300 2 584	-34	CW
<p>NOTE 1: OCBW is in Hz.</p> <p>NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to $P_{\min} + 26 \text{ dB}$ where P_{\min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.</p> <p>NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.</p>			

Table 16: Receiver Blocking parameters receiver Category 3 equipment

Wanted signal mean power from companion device (dBm) (see notes 1 and 3)	Blocking signal frequency (MHz)	Blocking signal power (dBm) (see note 3)	Type of blocking signal
$(-139 \text{ dBm} + 10 \times \log_{10}(\text{OCBW}) + 20 \text{ dB})$ or $(-74 \text{ dBm} + 20 \text{ dB})$ whichever is less (see note 2)	2 380 2 504 2 300 2 584	-34	CW
<p>NOTE 1: OCBW is in Hz.</p> <p>NOTE 2: In case of radiated measurements using a companion device and the level of the wanted signal from the companion device cannot be determined, a relative test may be performed using a wanted signal up to $P_{\min} + 30 \text{ dB}$ where P_{\min} is the minimum level of wanted signal required to meet the minimum performance criteria as defined in clause 4.3.1.12.3 in the absence of any blocking signal.</p> <p>NOTE 3: The level specified is the level at the UUT receiver input assuming a 0 dBi antenna assembly gain. In case of conducted measurements, this level has to be corrected for the (in-band) antenna assembly gain (G). In case of radiated measurements, this level is equivalent to a power flux density (PFD) in front of the UUT antenna with the UUT being configured/positioned as recorded in clause 5.4.3.2.2.</p>			

Test Setup Block diagram

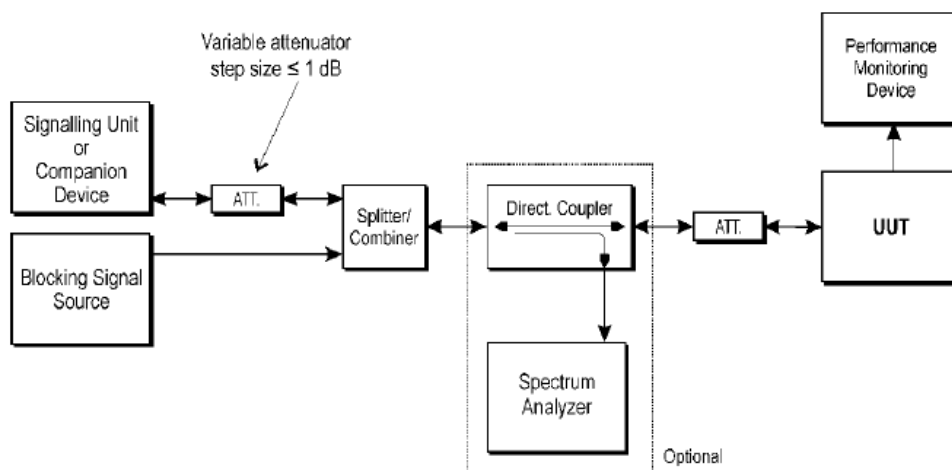


Figure 6: Test Set-up for receiver blocking

Test Procedure

The measurement procedure refer to ETSI EN 300 328 V2.2.2 (2019-07) §5.4.11

Test Data

Test Result: Compliant. Testing was performed with Chain 0, please refer to following tables.

Mode	Receiver Category	Channel	Frequency (MHz)	Blocking Signal Frequency (MHz)	PER (%)	Limit (%)
802.11b	1	Low	2412	2380	6.8	≤10
				2300	5.5	
				2330	6.1	
				2360	4.2	
	High	2472	2472	2504	7.6	≤10
				2524	6.4	
				2584	4.7	
				2674	5.3	

Note: The PER was monitored with CMW500.

**EXHIBIT A - E.2 INFORMATION AS REQUIRED BY EN 300 328 V2.2.2,
CLAUSE 5.4.1**

In accordance with EN 300 328, clause 5.4.1, the following information is provided by the supplier.

a) The type of modulation used by the equipment:

- ☐ FHSS
☒ other forms of modulation

b) In case of FHSS modulation:

In case of non-Adaptive Frequency Hopping equipment:

The number of Hopping Frequencies: _____.

In case of Adaptive Frequency Hopping Equipment:

The maximum number of Hopping Frequencies: _____;

The minimum number of Hopping Frequencies: _____;

The (average) Dwell Time: _____;

c) Adaptive / non-adaptive equipment:

- ☐ non-adaptive Equipment
☒ adaptive Equipment without the possibility to switch to a non-adaptive mode
☐ adaptive Equipment which can also operate in a non-adaptive mode

d) In case of adaptive equipment:

The Channel Occupancy Time implemented by the equipment: 5.220 ms

- ☐ The equipment has implemented an LBT based DAA mechanism

In case of equipment using modulation different from FHSS:

- ☐ The equipment is Frame Based equipment
☒ The equipment is Load Based equipment
☐ The equipment can switch dynamically between Frame Based and Load Based equipment

The CCA time implemented by the equipment: 0.044 ms

- ☐ The equipment has implemented an non-LBT based DAA mechanism
☐ The equipment can operate in more than one adaptive mode

e) In case of non-adaptive Equipment:

The maximum RF Output Power (e.i.r.p.): _____ dBm

The maximum (corresponding) Duty Cycle: _____ %

Equipment with dynamic behaviour, that behaviour is described here. (e.g. the different combinations of duty cycle and corresponding power levels to be declared):

_____.

f) The worst case operational mode for each of the following tests:

RF Output Power: 19.95 dBm;
 Power Spectral Density 9.96 dBm/MHz;
 Duty cycle, Tx-Sequence, Tx-gap N/A;
 Accumulated Transmit Time, Minimum Frequency Occupation & Hopping Sequence (only for FHSS equipment)
N/A;
 Hopping Frequency Separation (only for FHSS equipment) N/A;
 Medium Utilisation N/A;
 Adaptivity Pass;
 Receiver Blocking Pass;
 Nominal Occupied Channel Bandwidth 20&40 MHz;
 Transmitter unwanted emissions in the OOB domain -24.48 dBm/MHz;
 Transmitter unwanted emissions in the spurious domain -38.79 dBm;
 Receiver spurious emissions -64.26 dBm;

g) The different transmit operating modes (tick all that apply):

- ☐ Operating mode 1: Single Antenna Equipment
☐ Equipment with only 1 antenna
☐ Equipment with 2 diversity antennas but only 1 antenna active at any moment in time
☐ Smart Antenna Systems with 2 or more antennas, but operating in a (legacy) mode where only 1 antenna is used. (e.g. IEEE 802.11™ [i.3] legacy mode in smart antenna systems)
☒ Operating mode 2: Smart Antenna Systems - Multiple Antennas without beam forming
☒ Single spatial stream / Standard throughput / (e.g. IEEE 802.11™ [i.3] legacy mode)
☒ High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1
☒ High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
 Note: Add more lines if more channel bandwidths are supported.
☐ Operating mode 3: Smart Antenna Systems - Multiple Antennas with beam forming
☐ Single spatial stream / Standard throughput (e.g. IEEE 802.11™ [i.3] legacy mode)
☐ High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 1
☐ High Throughput (> 1 spatial stream) using Occupied Channel Bandwidth 2
 Note: Add more lines if more channel bandwidths are supported.

h) In case of Smart Antenna Systems:

The number of Receive chains: 2;
 The number of Transmit chains: 2;

- ☒ symmetrical power distribution
☐ asymmetrical power distribution

In case of beam forming, the maximum beam forming gain: _____;

Note: Beam forming gain does not include the basic gain of a single antenna.

i) Operating Frequency Range(s) of the equipment:

Operating Frequency Range 1: 2412 MHz to 2472 MHz
 Operating Frequency Range 2: 2422 MHz to 2462 MHz
 Operating Frequency Range 3: _____ MHz to _____ MHz

Note: Add more lines if more Frequency Ranges are supported.

j) Nominal Channel Bandwidth(s):

Nominal Channel Bandwidth 1: 20 MHz
 Nominal Channel Bandwidth 2: 40 MHz

Note: Add more lines if more channel bandwidths are supported.

k) Type of Equipment (stand-alone, combined, plug-in radio device, etc.):

- ☒ Stand-alone
☐ Combined Equipment (Equipment where the radio part is fully integrated within another type of equipment)
☐ Plug-in radio device (Equipment intended for a variety of host systems)
☐ Other _____;

l) The normal and the extreme operating conditions that apply to the equipment:

Normal operating conditions (if applicable):

Operating temperature range: +25 °C
 Other (please specify if applicable): _____

Extreme operating conditions:

Operating temperature range: Minimum: 0 °C Maximum +40 °C
 Other (please specify if applicable): _____ Minimum: _____ Maximum _____

Details provided are for the: ☒ stand-alone equipment
☐ combined (or host) equipment
☐ test jig

m) The intended combination(s) of the radio equipment power settings and one or more antenna assemblies and their corresponding e.i.r.p levels:

Antenna Type:

- ☒ Integral Antenna (information to be provided in case of conducted measurements)

Antenna Gain: 3.05/3.13 dBi

If applicable, additional beamforming gain (excluding basic antenna gain): _____ dB

- ☐ Temporary RF connector provided
☐ No temporary RF connector provided

- ☐ Dedicated Antennas (equipment with antenna connector)
☐ Single power level with corresponding antenna(s)
☐ Multiple power settings and corresponding antenna(s)

Number of different Power Levels: _____;
 Power Level 1: _____ dBm
 Power Level 2: _____ dBm
 Power Level 3: _____ dBm

Note 1: Add more lines in case the equipment has more power levels.

Note 2: These power levels are conducted power levels (at antenna connector).

For each of the Power Levels, provide the intended antenna assemblies, their corresponding gains (G) and the resulting e.i.r.p. levels also taking into account the beamforming gain (Y) if applicable

Power Level 1: ____dBm

Number of antenna assemblies provided for this power level:

Assembly #	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

Note 3: Add more rows in case more antenna assemblies are supported for this power level.

Power Level 2: ____dBm

Number of antenna assemblies provided for this power level:

Assembly #	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

Note4: Add more rows in case more antenna assemblies are supported for this power level.

Power Level 2: ____dBm

Number of antenna assemblies provided for this power level:

Assembly #	Gain (dBi)	e.i.r.p. (dBm)	Part number or model name
1			
2			
3			
4			

Note5: Add more rows in case more antenna assemblies are supported for this power level.

n) The nominal voltages of the stand-alone radio equipment or the nominal voltages of the combined (host) equipment or test jig in case of plug-in devices:

Details provided are for the: ☒ stand-alone equipment
☐ combined (or host) equipment
☐ test jig

Supply Voltage ☒ AC mains State AC voltage 100-240 V
☐ DC State DC voltage _____ V

In case of DC, indicate the type of power source

- ☐ Internal Power Supply
☐ External Power Supply or AC/DC adapter
☐ Battery
☐ Other: _____

o) Describe the test modes available which can facilitate testing:

The measurements shall be performed during continuously transmitting

p) The equipment type (e.g. Bluetooth®, IEEE 802.11™, IEEE 802.15.4™, proprietary, etc.):

IEEE 802.11™

q) If applicable, the statistical analysis referred to in clause 5.4.1 q)

(to be provided as separate attachment)

r) If applicable, the statistical analysis referred to in clause 5.4.1 r)

(to be provided as separate attachment)

s) Geo-location capability supported by the equipment:

- ☐ Yes
- ☐ The geographical location determined by the equipment as defined in clause 4.3.1.13.2 or clause 4.3.2.12.2 is not accessible to the user.
- ☒ No

EXHIBIT B - EUT PHOTOGRAPHS

For photos in this section, please refer to report No.: 2402Z107018E-02 EXHIBIT A.

EXHIBIT C – TEST SETUP PHOTOGRAPHS

Radiated Emission Below 1GHz View



Radiated Emission Above 1GHz View



APPENDIX – RF CONDUCTED TEST DATA

Appendix A: RF Output Power Test Result

Test Condition	Test Mode	Antenna	Frequency[MHz]	Set Power	Burst Power [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
NTNV	11B	Ant1	2412	NA	15.94	3.05	18.99	20	PASS
		Ant2	2412	NA	15.87	3.13	19.00	20	PASS
		Ant1	2442	NA	15.52	3.05	18.57	20	PASS
		Ant2	2442	NA	15.86	3.13	18.99	20	PASS
		Ant1	2472	NA	15.79	3.05	18.84	20	PASS
		Ant2	2472	NA	15.71	3.13	18.84	20	PASS
	11G	Ant1	2412	NA	16.75	3.05	19.80	20	PASS
		Ant2	2412	NA	16.68	3.13	19.81	20	PASS
		Ant1	2442	NA	16.72	3.05	19.77	20	PASS
		Ant2	2442	NA	16.61	3.13	19.74	20	PASS
		Ant1	2472	NA	16.85	3.05	19.90	20	PASS
		Ant2	2472	NA	16.68	3.13	19.81	20	PASS
	11N20MIMO	Ant1	2412	NA	13.81	3.05	16.86	20	PASS
		Ant2	2412	NA	13.62	3.13	16.75	20	PASS
		total	2412	NA	16.80	3.13	19.93	20	PASS
		Ant1	2442	NA	13.73	3.05	16.78	20	PASS
		Ant2	2442	NA	13.64	3.13	16.77	20	PASS
		total	2442	NA	16.76	3.13	19.89	20	PASS
		Ant1	2472	NA	13.74	3.05	16.79	20	PASS
		Ant2	2472	NA	13.70	3.13	16.83	20	PASS
		total	2472	NA	16.80	3.13	19.93	20	PASS
	11N40MIMO	Ant1	2422	NA	13.58	3.05	16.63	20	PASS
		Ant2	2422	NA	13.83	3.13	16.96	20	PASS
		total	2422	NA	16.74	3.13	19.87	20	PASS
		Ant1	2442	NA	13.84	3.05	16.89	20	PASS
		Ant2	2442	NA	13.68	3.13	16.81	20	PASS
		total	2442	NA	16.80	3.13	19.93	20	PASS
		Ant1	2462	NA	13.68	3.05	16.73	20	PASS
		Ant2	2462	NA	13.79	3.13	16.92	20	PASS
		total	2462	NA	16.77	3.13	19.90	20	PASS
LTNV	11B	Ant1	2412	NA	15.97	3.05	19.02	20	PASS
		Ant2	2412	NA	15.92	3.13	19.05	20	PASS
		Ant1	2442	NA	15.55	3.05	18.60	20	PASS
		Ant2	2442	NA	15.89	3.13	19.02	20	PASS
		Ant1	2472	NA	15.81	3.05	18.86	20	PASS
		Ant2	2472	NA	15.74	3.13	18.87	20	PASS
	11G	Ant1	2412	NA	16.77	3.05	19.82	20	PASS
		Ant2	2412	NA	16.71	3.13	19.84	20	PASS
		Ant1	2442	NA	16.74	3.05	19.79	20	PASS
		Ant2	2442	NA	16.63	3.13	19.76	20	PASS
		Ant1	2472	NA	16.88	3.05	19.93	20	PASS
		Ant2	2472	NA	16.72	3.13	19.85	20	PASS
	11N20MIMO	Ant1	2412	NA	13.84	3.05	16.89	20	PASS
		Ant2	2412	NA	13.64	3.13	16.77	20	PASS
		total	2412	NA	16.82	3.13	19.95	20	PASS
		Ant1	2442	NA	13.76	3.05	16.81	20	PASS
		Ant2	2442	NA	13.65	3.13	16.78	20	PASS
		total	2442	NA	16.78	3.13	19.91	20	PASS
		Ant1	2472	NA	13.77	3.05	16.82	20	PASS
		Ant2	2472	NA	13.74	3.13	16.87	20	PASS
		total	2472	NA	16.82	3.13	19.95	20	PASS
	11N40MIMO	Ant1	2422	NA	13.61	3.05	16.66	20	PASS
		Ant2	2422	NA	13.85	3.13	16.98	20	PASS
		total	2422	NA	16.75	3.13	19.88	20	PASS
		Ant1	2442	NA	13.86	3.05	16.91	20	PASS
		Ant2	2442	NA	13.71	3.13	16.84	20	PASS
		total	2442	NA	16.81	3.13	19.94	20	PASS
		Ant1	2462	NA	13.70	3.05	16.75	20	PASS
		Ant2	2462	NA	13.81	3.13	16.94	20	PASS

HTNV	11B	total	2462	NA	16.79	3.13	19.92	20	PASS
		Ant1	2412	NA	15.92	3.05	18.97	20	PASS
		Ant2	2412	NA	15.85	3.13	18.98	20	PASS
		Ant1	2442	NA	15.49	3.05	18.54	20	PASS
		Ant2	2442	NA	15.84	3.13	18.97	20	PASS
		Ant1	2472	NA	15.75	3.05	18.80	20	PASS
	11G	Ant2	2472	NA	15.68	3.13	18.81	20	PASS
		Ant1	2412	NA	16.72	3.05	19.77	20	PASS
		Ant2	2412	NA	16.64	3.13	19.77	20	PASS
		Ant1	2442	NA	16.70	3.05	19.75	20	PASS
		Ant2	2442	NA	16.56	3.13	19.69	20	PASS
		Ant1	2472	NA	16.81	3.05	19.86	20	PASS
	11N20MIMO	Ant2	2472	NA	16.66	3.13	19.79	20	PASS
		Ant1	2412	NA	13.78	3.05	16.83	20	PASS
		Ant2	2412	NA	13.60	3.13	16.73	20	PASS
		total	2412	NA	16.78	3.13	19.91	20	PASS
		Ant1	2442	NA	13.71	3.05	16.76	20	PASS
		Ant2	2442	NA	13.61	3.13	16.74	20	PASS
		total	2442	NA	16.72	3.13	19.85	20	PASS
		Ant1	2472	NA	13.72	3.05	16.77	20	PASS
	11N40MIMO	Ant2	2472	NA	13.67	3.13	16.80	20	PASS
		total	2472	NA	16.77	3.13	19.90	20	PASS
		Ant1	2422	NA	13.55	3.05	16.60	20	PASS
		Ant2	2422	NA	13.81	3.13	16.94	20	PASS
		total	2422	NA	16.72	3.13	19.85	20	PASS
		Ant1	2442	NA	13.81	3.05	16.86	20	PASS
		Ant2	2442	NA	13.65	3.13	16.78	20	PASS
		total	2442	NA	16.76	3.13	19.89	20	PASS
		Ant1	2462	NA	13.64	3.05	16.69	20	PASS
		Ant2	2462	NA	13.75	3.13	16.88	20	PASS
		total	2462	NA	16.74	3.13	19.87	20	PASS

Beamforming

Test Condition	Test Mode	Antenna	Frequency[MHz]	Set Power	Burst Power [dBm]	Gain [dBi]	EIRP [dBm]	EIRP Limit [dBm]	Verdict
NTNV	11N20MIMO	Ant1	2412	NA	10.63	3.05	13.68	20	PASS
		Ant2	2412	NA	10.70	3.13	13.83	20	PASS
		total	2412	NA	13.74	6.13	19.87	20	PASS
		Ant1	2442	NA	10.82	3.05	13.87	20	PASS
		Ant2	2442	NA	10.64	3.13	13.77	20	PASS
		total	2442	NA	13.81	6.13	19.94	20	PASS
		Ant1	2472	NA	10.58	3.05	13.63	20	PASS
		Ant2	2472	NA	10.73	3.13	13.86	20	PASS
		total	2472	NA	13.73	6.13	19.86	20	PASS
	11N40MIMO	Ant1	2422	NA	10.69	3.05	13.74	20	PASS
		Ant2	2422	NA	10.52	3.13	13.65	20	PASS
		total	2422	NA	13.64	6.13	19.77	20	PASS
		Ant1	2442	NA	10.63	3.05	13.68	20	PASS
		Ant2	2442	NA	10.66	3.13	13.79	20	PASS
		total	2442	NA	13.68	6.13	19.81	20	PASS
		Ant1	2462	NA	10.69	3.05	13.74	20	PASS
		Ant2	2462	NA	10.53	3.13	13.66	20	PASS
		total	2462	NA	13.64	6.13	19.77	20	PASS
LTNV	11N20MIMO	Ant1	2412	NA	10.65	3.05	13.7	20	PASS
		Ant2	2412	NA	10.72	3.13	13.85	20	PASS
		total	2412	NA	13.75	6.13	19.88	20	PASS
		Ant1	2442	NA	10.84	3.05	13.89	20	PASS
		Ant2	2442	NA	10.65	3.13	13.78	20	PASS
		total	2442	NA	13.83	6.13	19.96	20	PASS
		Ant1	2472	NA	10.60	3.05	13.65	20	PASS
		Ant2	2472	NA	10.75	3.13	13.88	20	PASS
		total	2472	NA	13.74	6.13	19.87	20	PASS
	11N40MIMO	Ant1	2422	NA	10.72	3.05	13.77	20	PASS
		Ant2	2422	NA	10.55	3.13	13.68	20	PASS
		total	2422	NA	13.66	6.13	19.79	20	PASS
		Ant1	2442	NA	10.65	3.05	13.70	20	PASS
		Ant2	2442	NA	10.67	3.13	13.80	20	PASS
		total	2442	NA	13.70	6.13	19.83	20	PASS
		Ant1	2462	NA	10.73	3.05	13.78	20	PASS
		Ant2	2462	NA	10.56	3.13	13.69	20	PASS
		total	2462	NA	13.67	6.13	19.80	20	PASS
HTNV	11N20MIMO	Ant1	2412	NA	10.61	3.05	13.66	20	PASS
		Ant2	2412	NA	10.68	3.13	13.81	20	PASS
		total	2412	NA	13.71	6.13	19.84	20	PASS
		Ant1	2442	NA	10.80	3.05	13.85	20	PASS
		Ant2	2442	NA	10.62	3.13	13.75	20	PASS
		total	2442	NA	13.78	6.13	19.91	20	PASS
		Ant1	2472	NA	10.55	3.05	13.60	20	PASS
		Ant2	2472	NA	10.71	3.13	13.84	20	PASS
		total	2472	NA	13.72	6.13	19.85	20	PASS
	11N40MIMO	Ant1	2422	NA	10.67	3.05	13.72	20	PASS
		Ant2	2422	NA	10.50	3.13	13.63	20	PASS
		total	2422	NA	13.61	6.13	19.74	20	PASS
		Ant1	2442	NA	10.60	3.05	13.65	20	PASS
		Ant2	2442	NA	10.62	3.13	13.75	20	PASS
		total	2442	NA	13.65	6.13	19.78	20	PASS
		Ant1	2462	NA	10.64	3.05	13.69	20	PASS
		Ant2	2462	NA	10.50	3.13	13.63	20	PASS
		total	2462	NA	13.62	6.13	19.75	20	PASS

Appendix B: Power Spectral Density Test Result

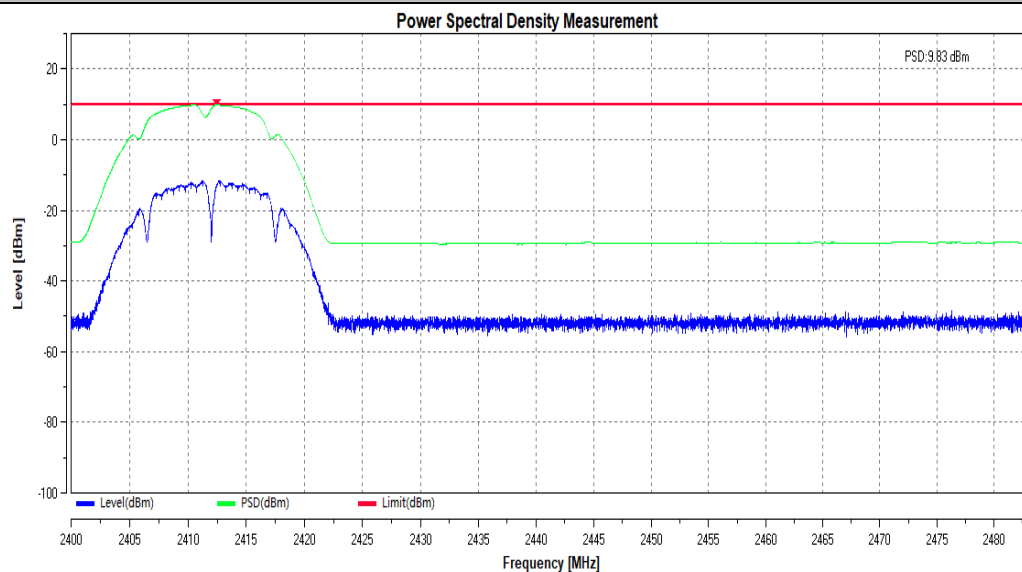
Test Mode	Antenna	Frequency[MHz]	EIRP PSD[dBm/MHz]	Limit[dBm/MHz]	Verdict
11B	Ant1	2412	9.83	10	PASS
	Ant2	2412	9.93	10	PASS
	Ant1	2442	9.53	10	PASS
	Ant2	2442	9.96	10	PASS
	Ant1	2472	9.77	10	PASS
	Ant2	2472	9.75	10	PASS
11G	Ant1	2412	8.35	10	PASS
	Ant2	2412	8.34	10	PASS
	Ant1	2442	8.52	10	PASS
	Ant2	2442	8.50	10	PASS
	Ant1	2472	8.51	10	PASS
	Ant2	2472	8.42	10	PASS
11N20MIMO	Ant1	2412	5.17	10	PASS
	Ant2	2412	5.11	10	PASS
	total	2412	8.22	10	PASS
	Ant1	2442	5.31	10	PASS
	Ant2	2442	5.31	10	PASS
	total	2442	8.38	10	PASS
	Ant1	2472	5.14	10	PASS
	Ant2	2472	5.20	10	PASS
	total	2472	8.25	10	PASS
11N40MIMO	Ant1	2422	2.25	10	PASS
	Ant2	2422	2.56	10	PASS
	total	2422	5.40	10	PASS
	Ant1	2442	3.10	10	PASS
	Ant2	2442	2.98	10	PASS
	total	2442	6.04	10	PASS
	Ant1	2462	2.40	10	PASS
	Ant2	2462	2.59	10	PASS
	total	2462	5.46	10	PASS

Beamforming

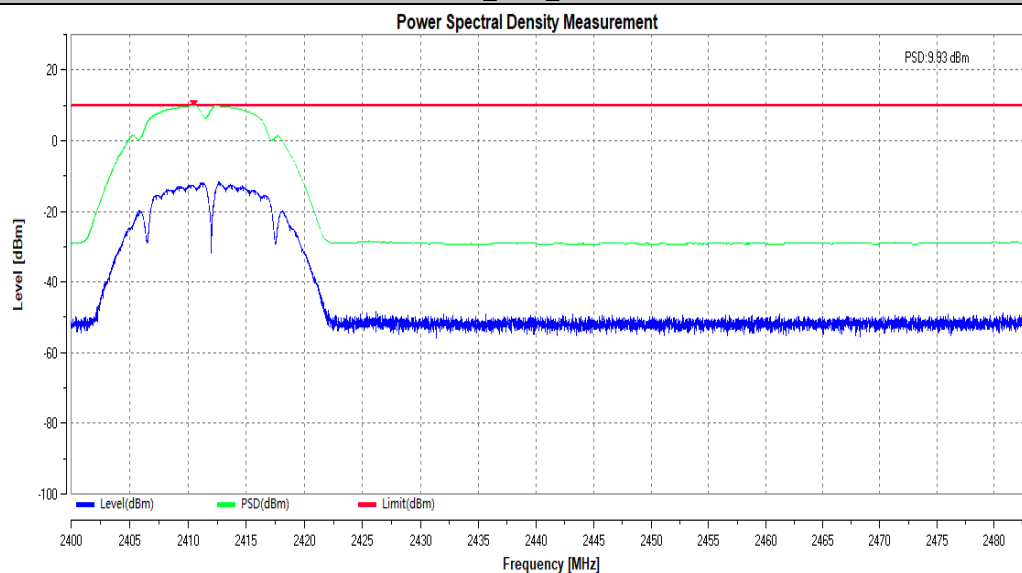
Test Mode	Antenna	Frequency[MHz]	EIRP PSD[dBm/MHz]	Limit[dBm/MHz]	Verdict
11N20MIMO	Ant1	2412	1.99	10	PASS
	Ant2	2412	2.20	10	PASS
	total	2412	8.16	10	PASS
	Ant1	2442	2.38	10	PASS
	Ant2	2442	2.30	10	PASS
	total	2442	8.42	10	PASS
	Ant1	2472	1.97	10	PASS
	Ant2	2472	2.23	10	PASS
	total	2472	8.17	10	PASS
11N40MIMO	Ant1	2422	-0.67	10	PASS
	Ant2	2422	-0.78	10	PASS
	total	2422	5.29	10	PASS
	Ant1	2442	-0.19	10	PASS
	Ant2	2442	-0.05	10	PASS
	total	2442	5.91	10	PASS
	Ant1	2462	-0.60	10	PASS
	Ant2	2462	-0.69	10	PASS
	total	2462	5.35	10	PASS

Test Graphs

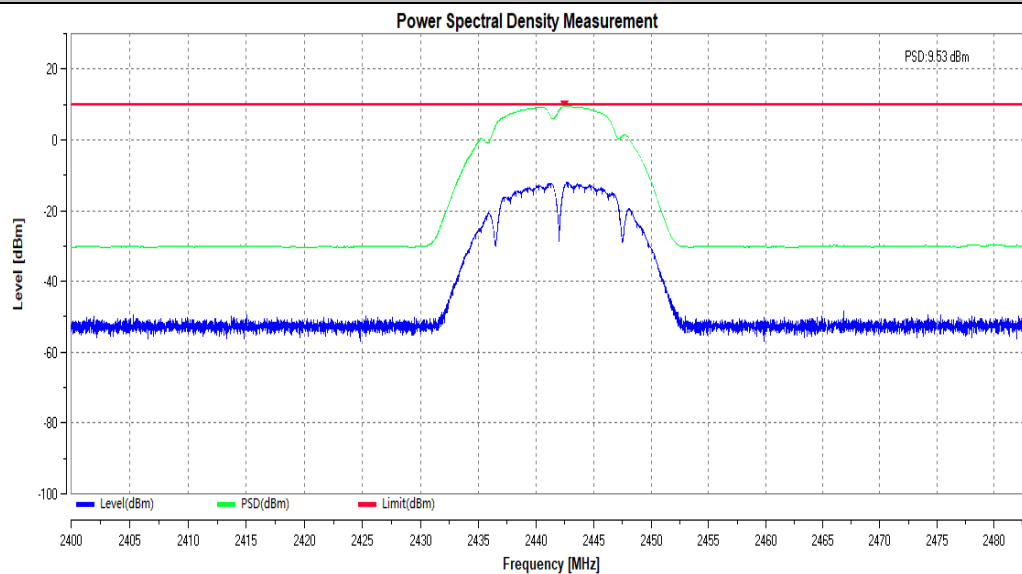
11B_Ant1_2412



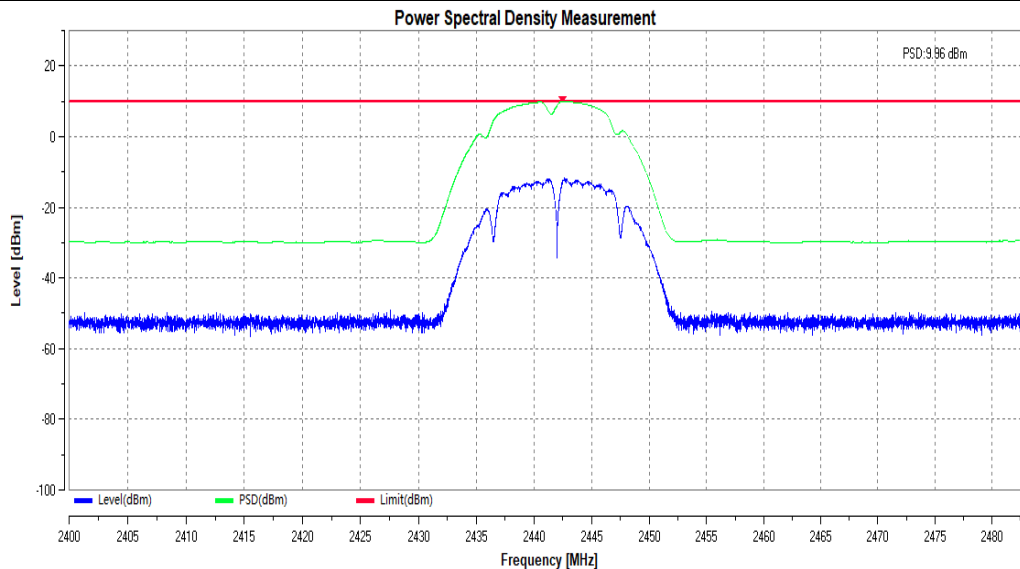
11B_Ant2_2412



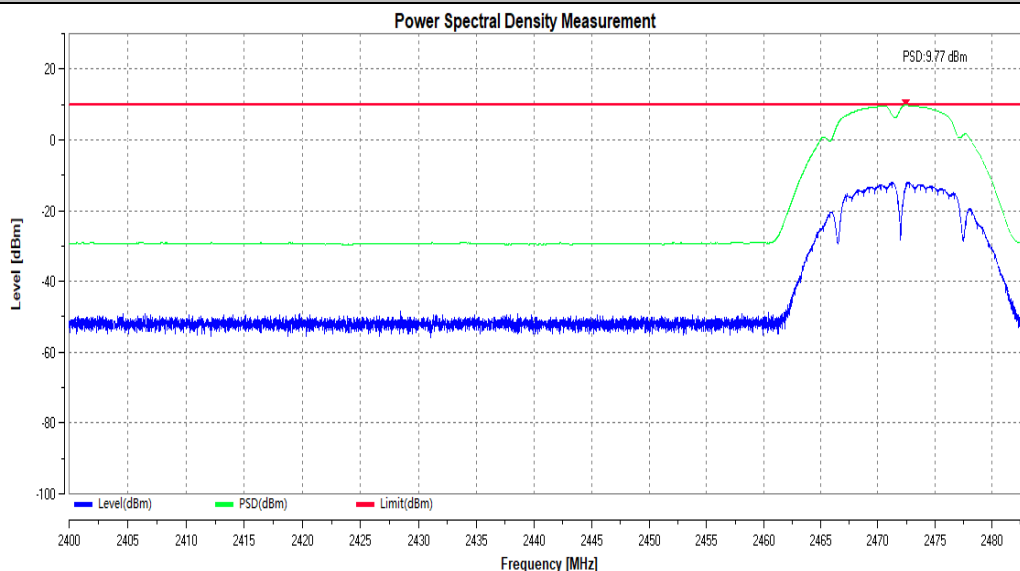
11B_Ant1_2442



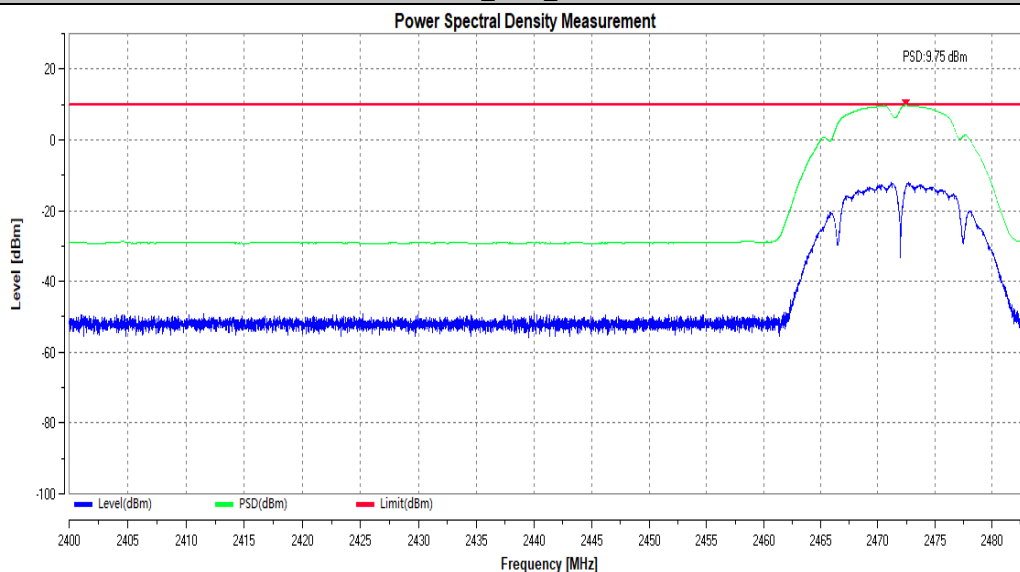
11B_Ant2_2442



11B_Ant1_2472

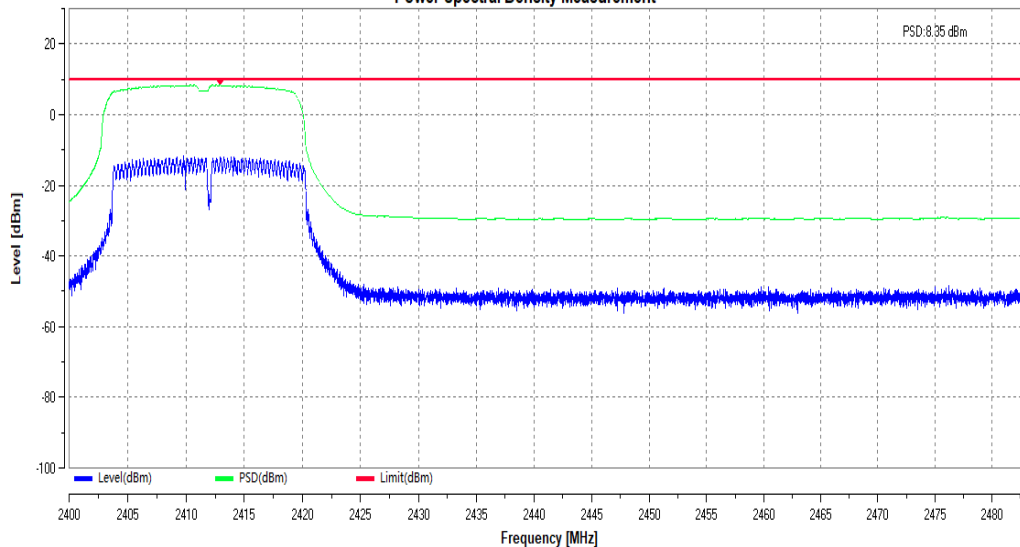


11B_Ant2_2472



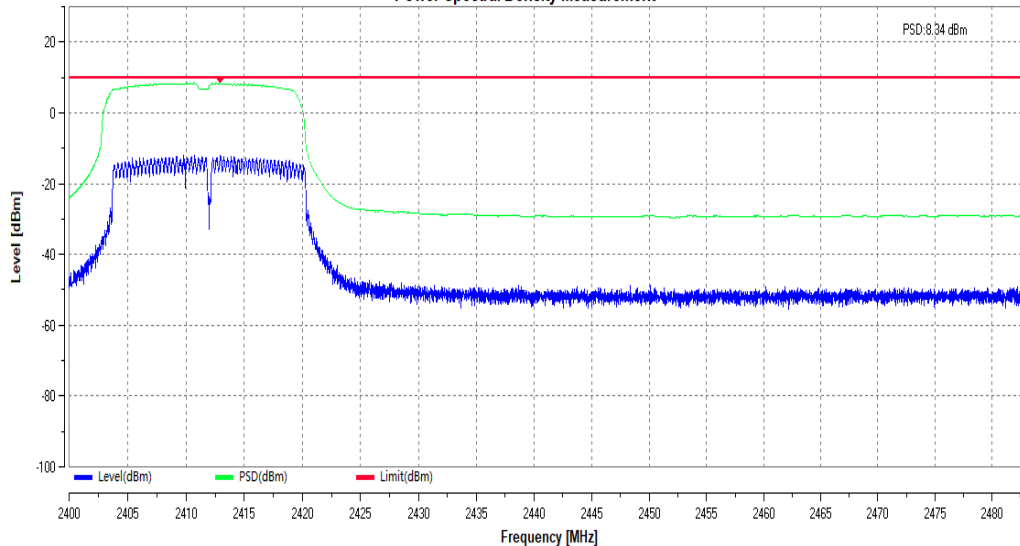
11G_Ant1_2412

Power Spectral Density Measurement



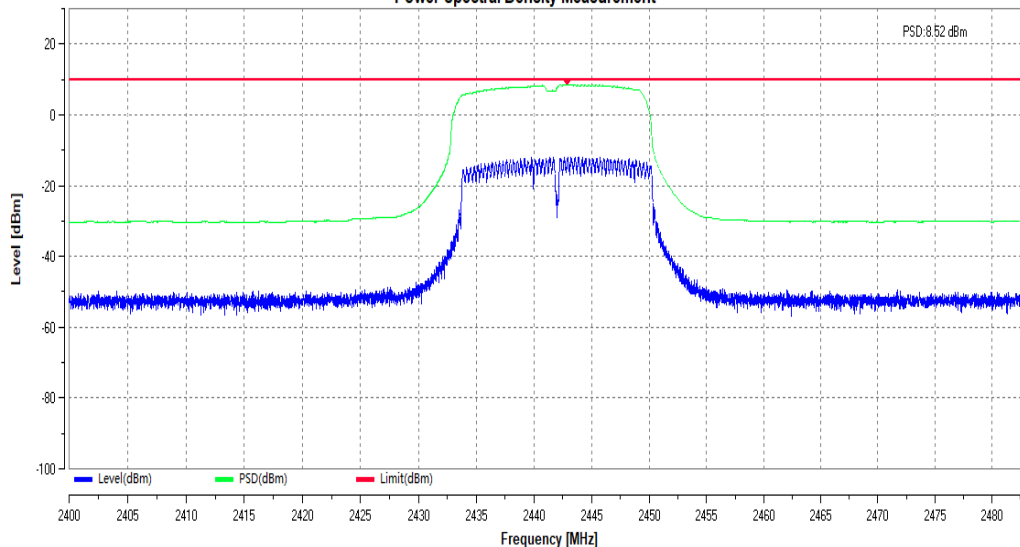
11G_Ant2_2412

Power Spectral Density Measurement

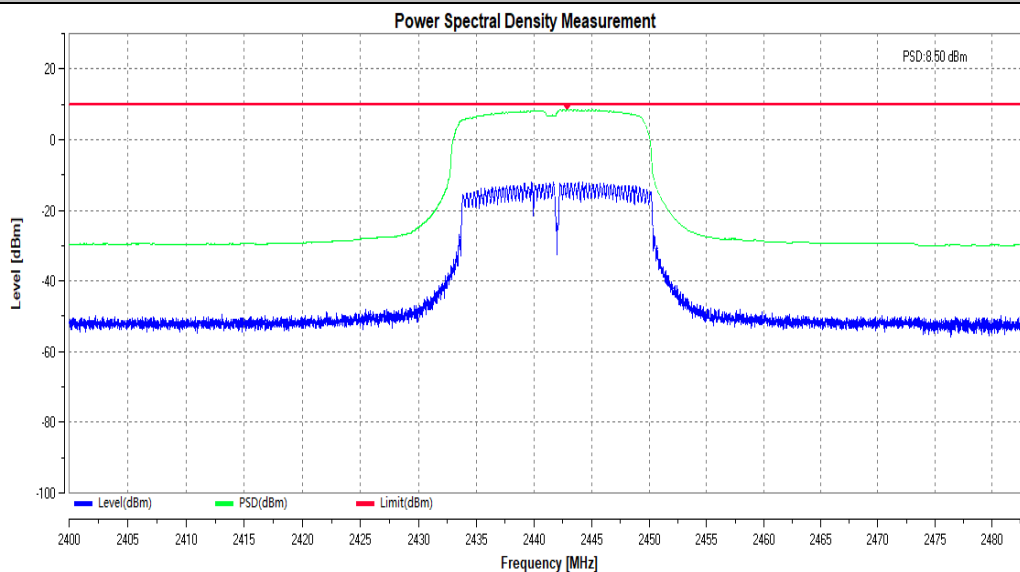


11G_Ant1_2442

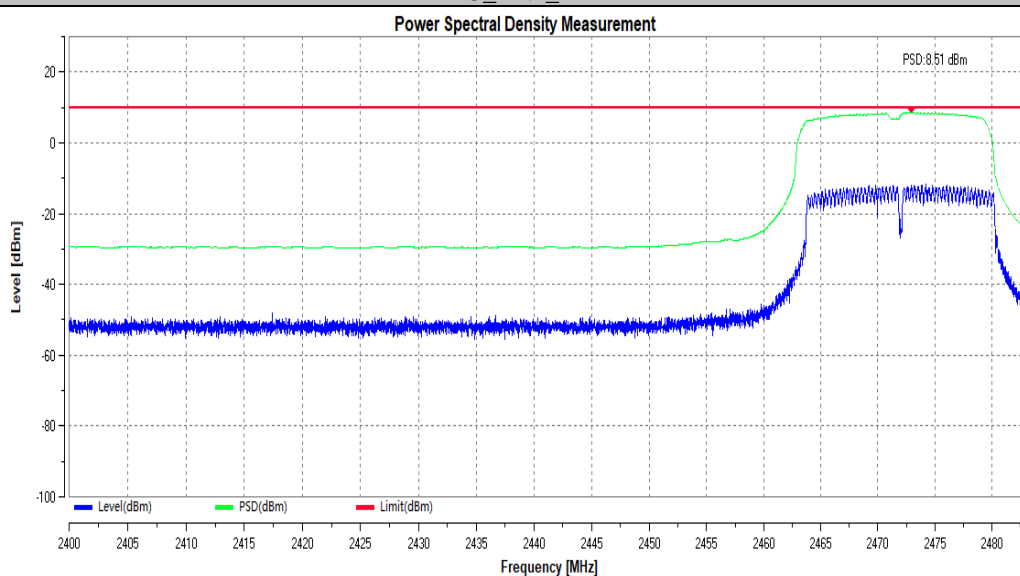
Power Spectral Density Measurement



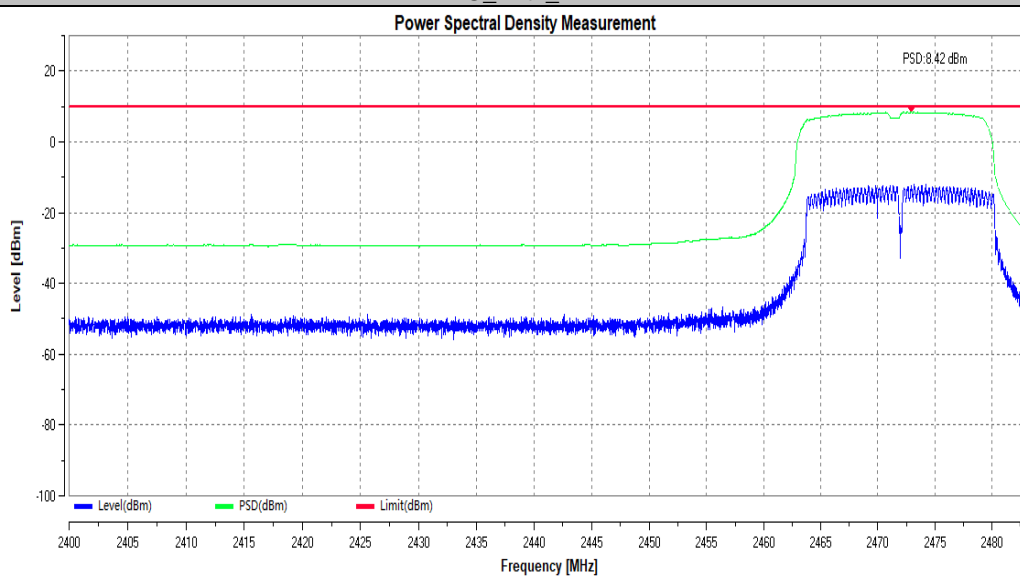
11G_Ant2_2442



11G_Ant1_2472

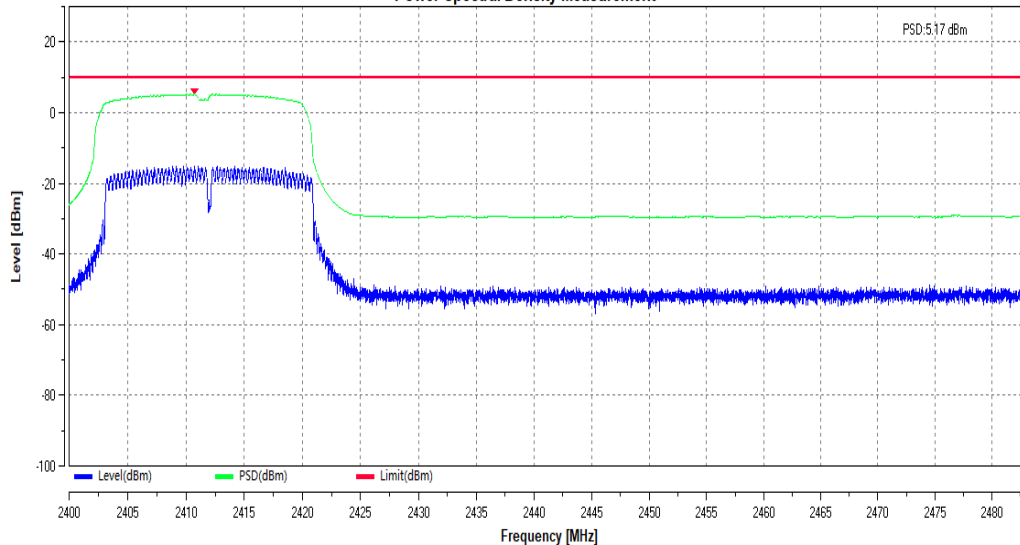


11G_Ant2_2472



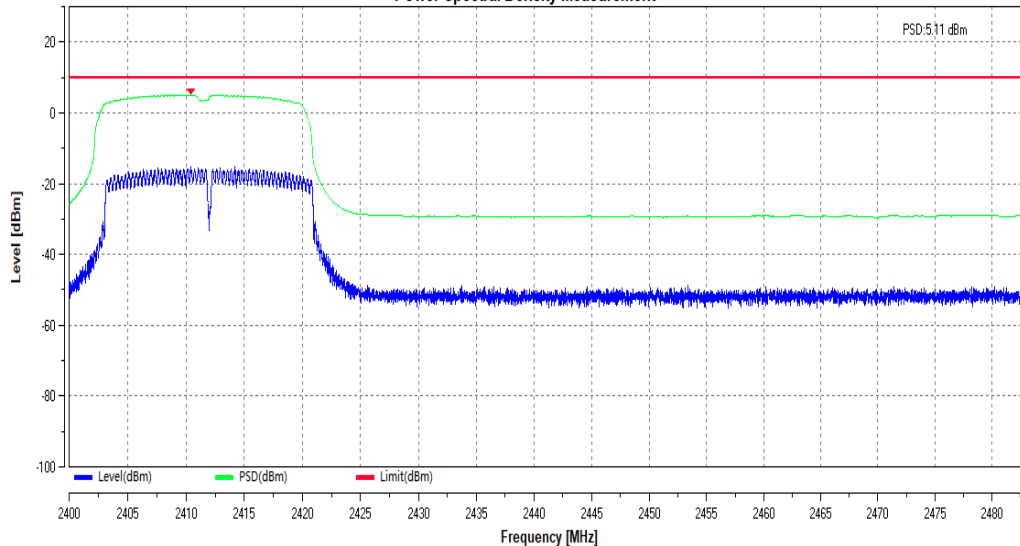
11N20MIMO_Ant1_2412

Power Spectral Density Measurement



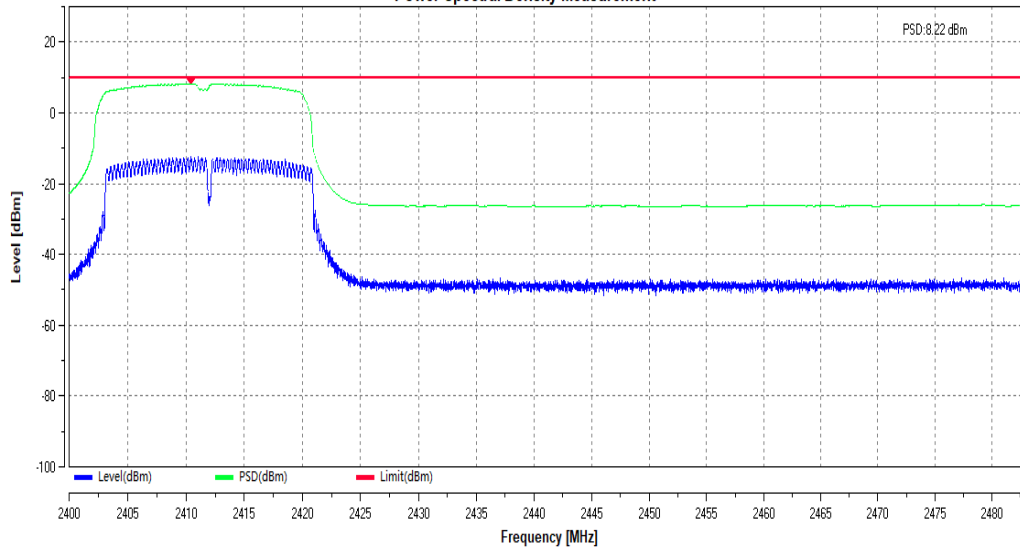
11N20MIMO_Ant2_2412

Power Spectral Density Measurement



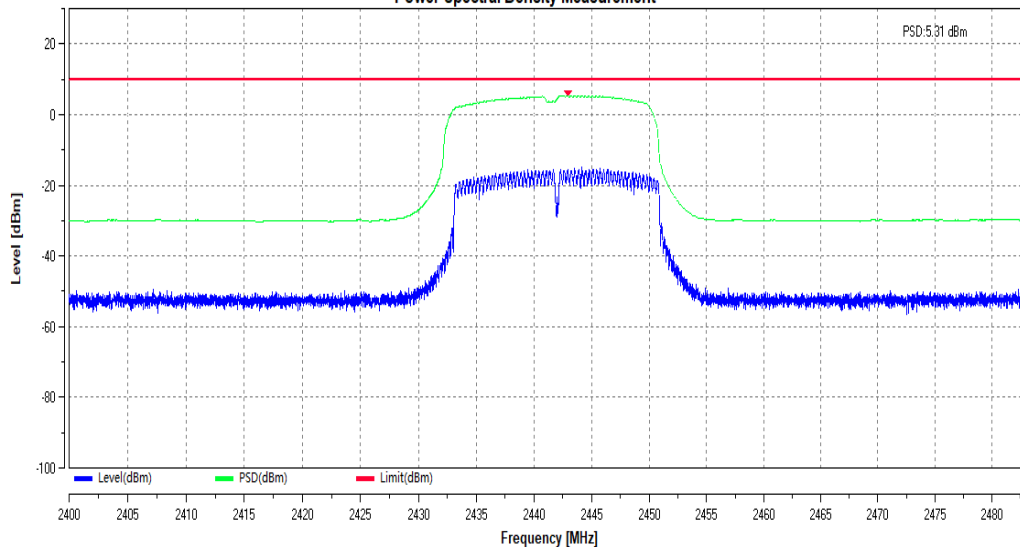
11N20MIMO_total_2412

Power Spectral Density Measurement



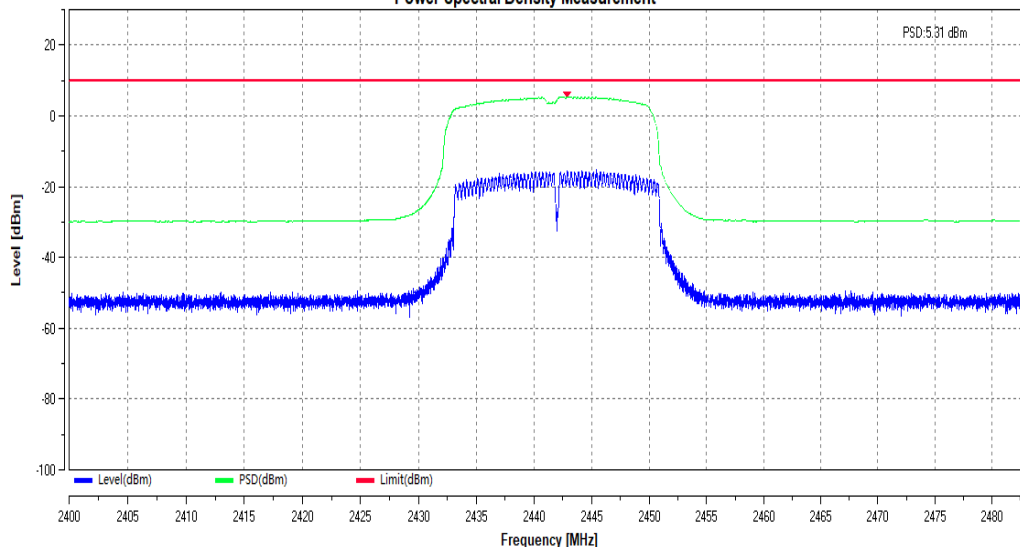
11N20MIMO_Ant1_2442

Power Spectral Density Measurement



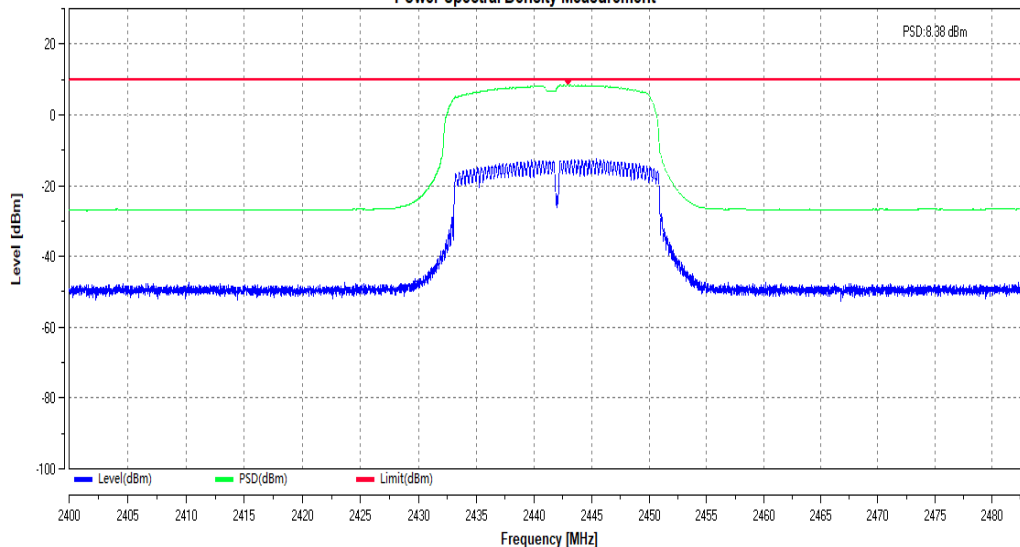
11N20MIMO_Ant2_2442

Power Spectral Density Measurement



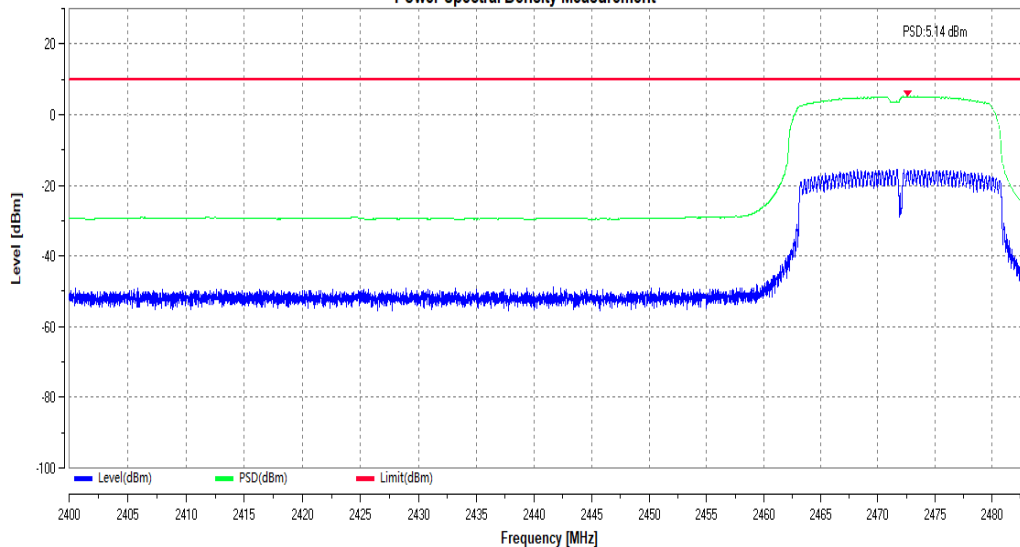
11N20MIMO_total_2442

Power Spectral Density Measurement



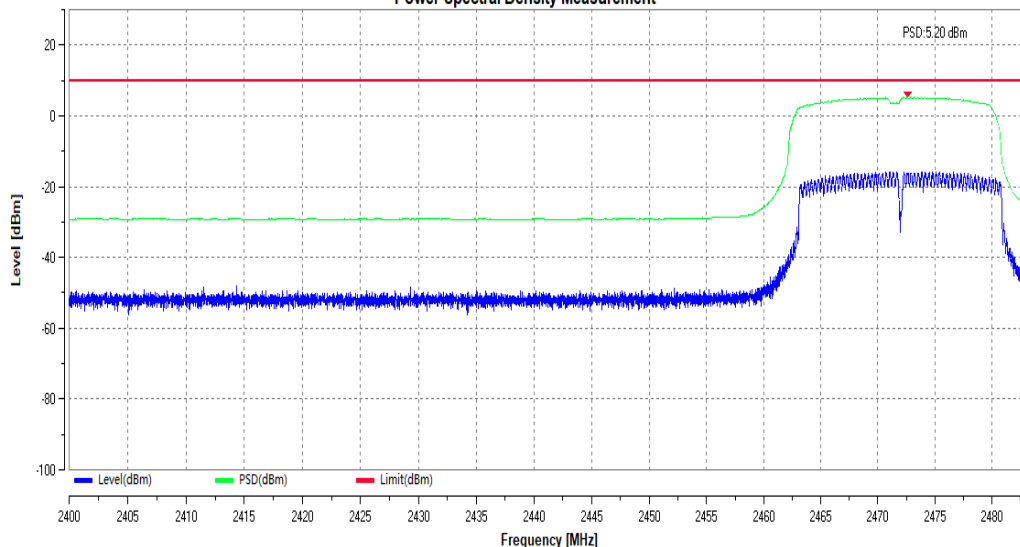
11N20MIMO_Ant1_2472

Power Spectral Density Measurement



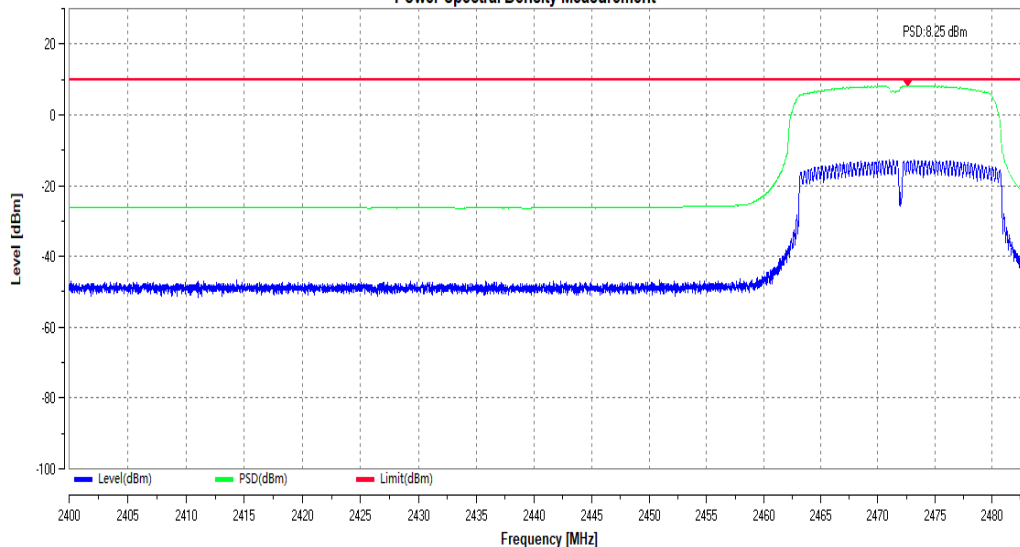
11N20MIMO_Ant2_2472

Power Spectral Density Measurement



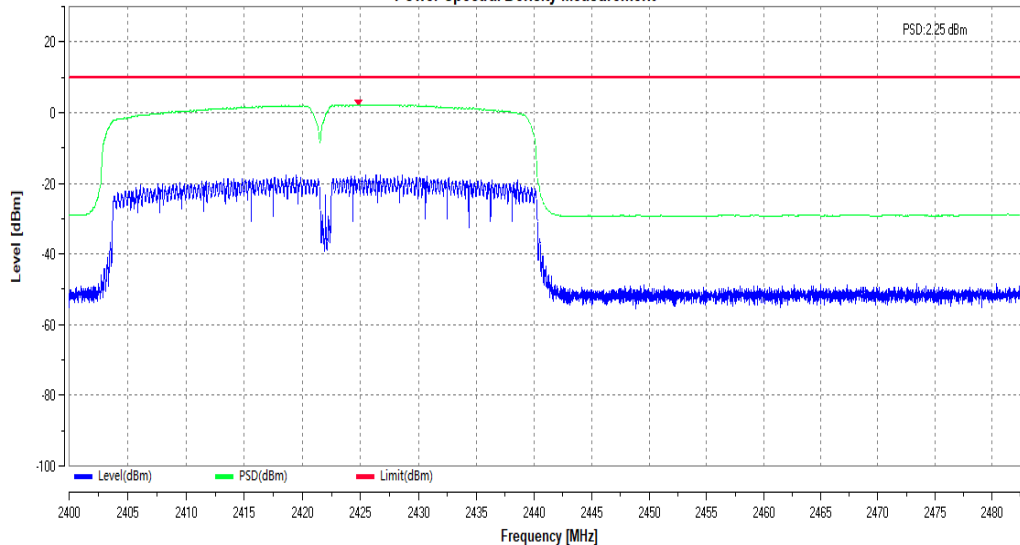
11N20MIMO_total_2472

Power Spectral Density Measurement



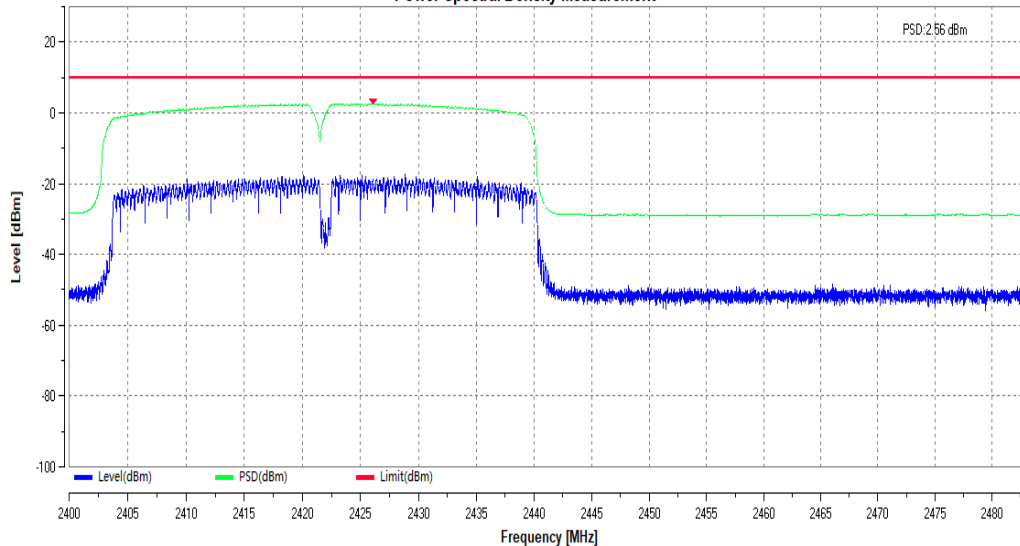
11N40MIMO_Ant1_2422

Power Spectral Density Measurement



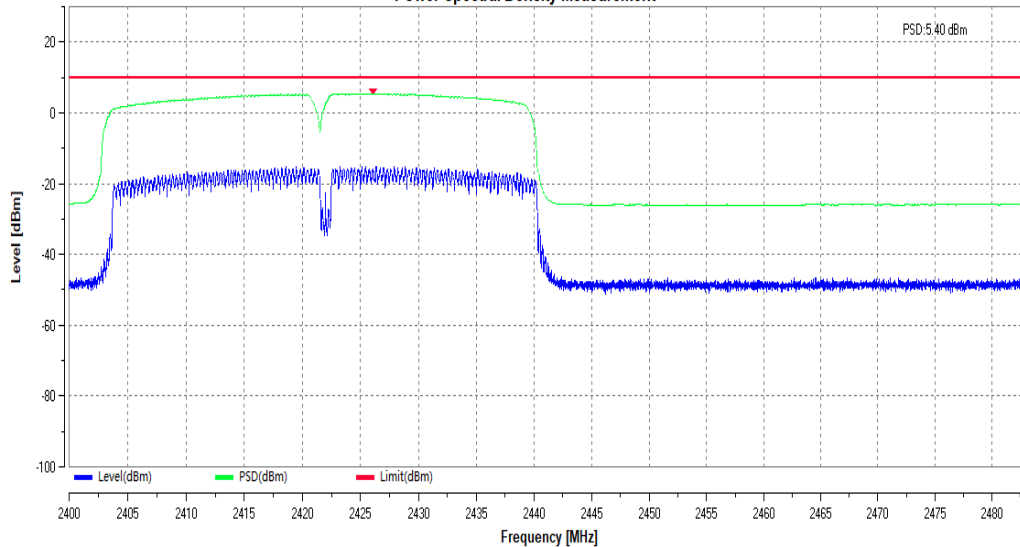
11N40MIMO_Ant2_2422

Power Spectral Density Measurement



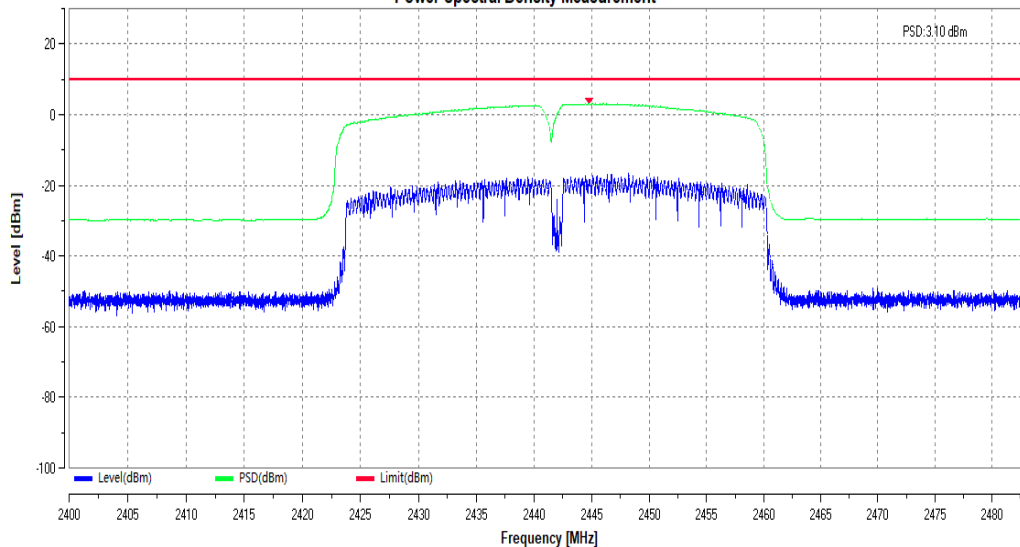
11N40MIMO_total_2422

Power Spectral Density Measurement



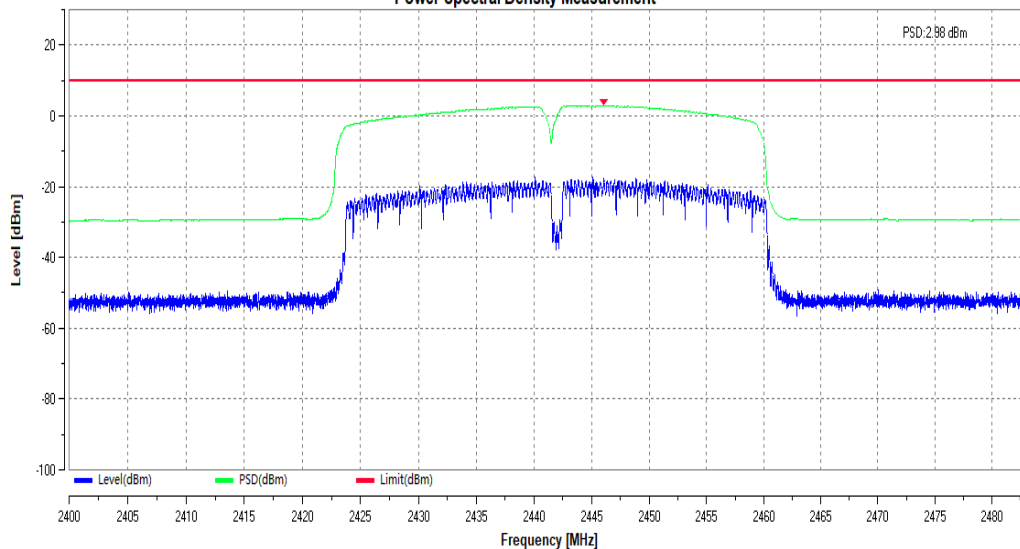
11N40MIMO_Ant1_2442

Power Spectral Density Measurement



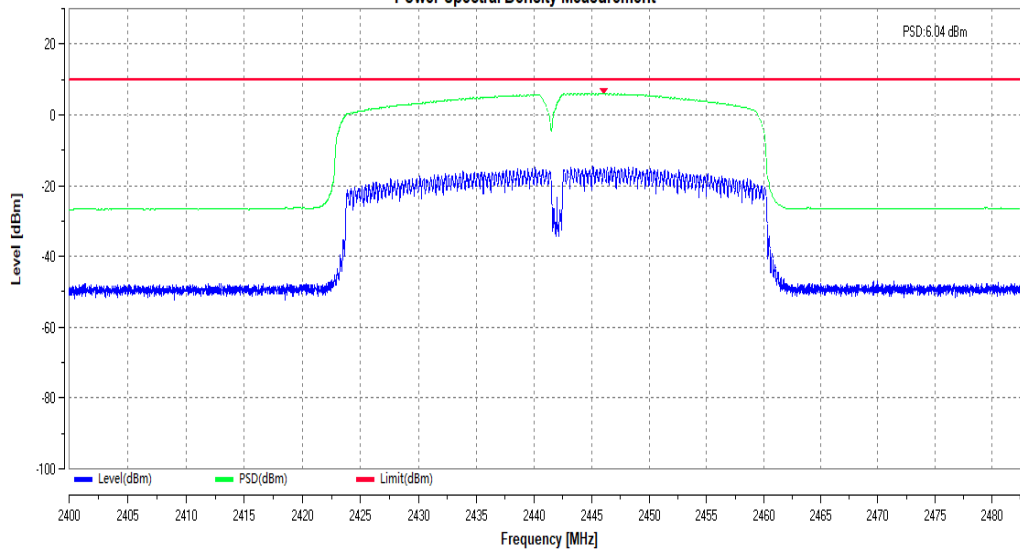
11N40MIMO_Ant2_2442

Power Spectral Density Measurement



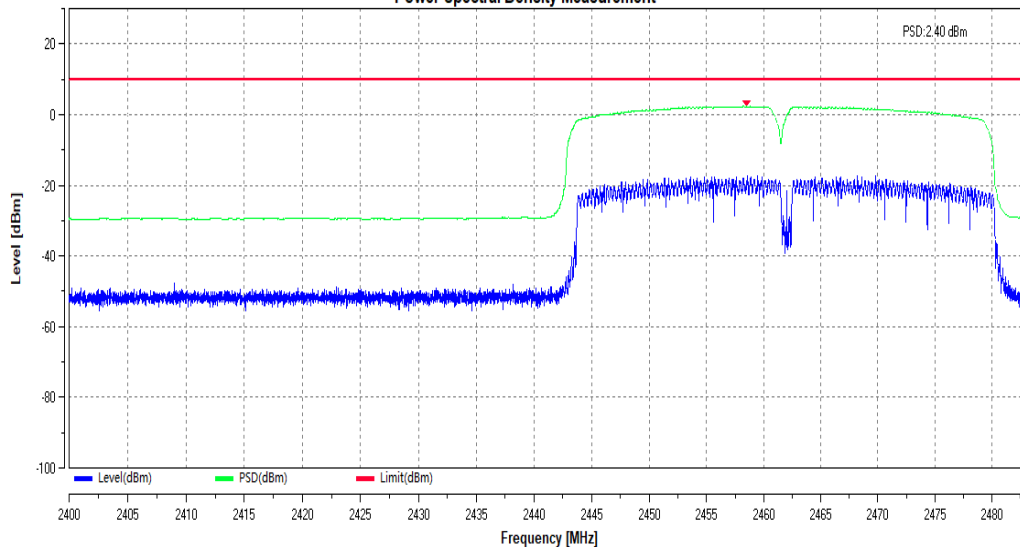
11N40MIMO_total_2442

Power Spectral Density Measurement



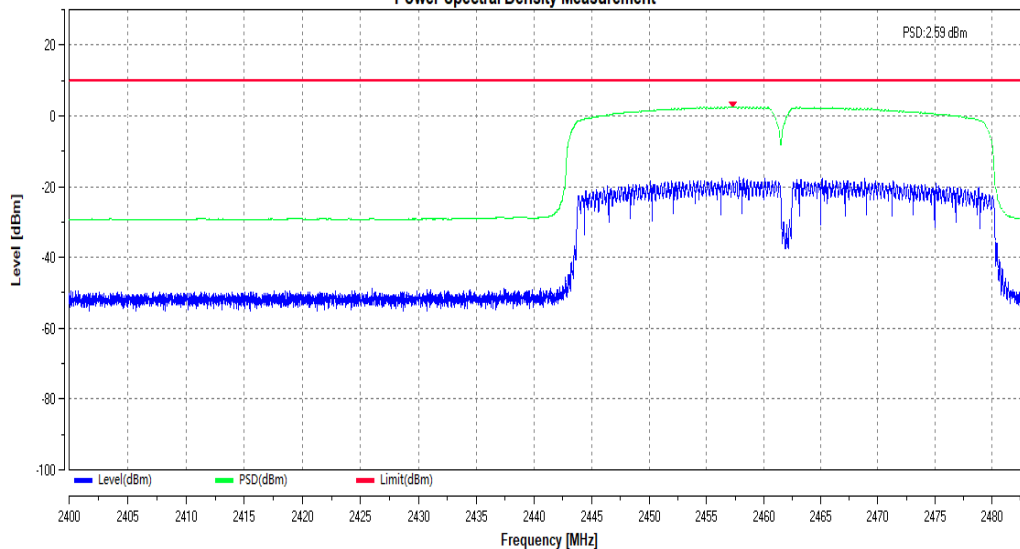
11N40MIMO_Ant1_2462

Power Spectral Density Measurement



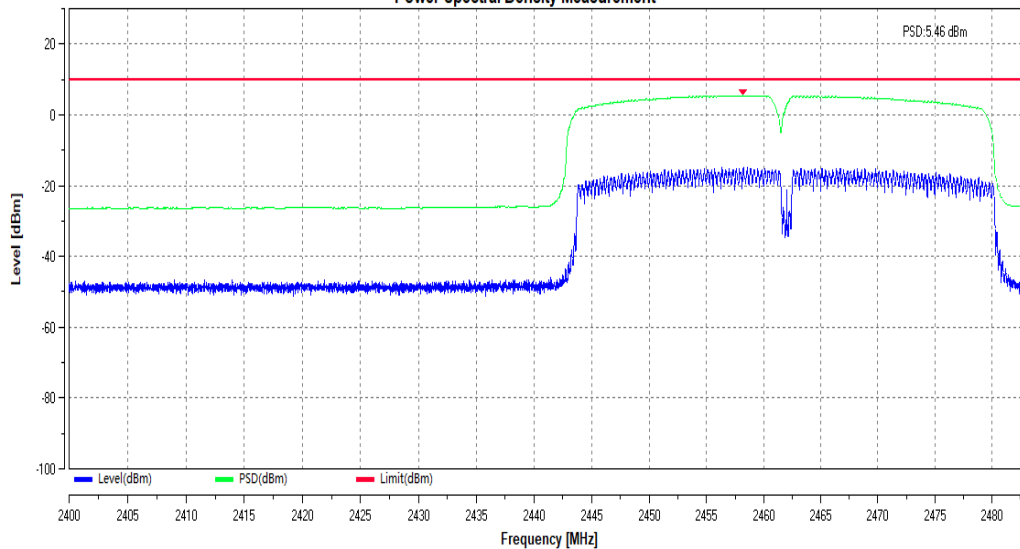
11N40MIMO_Ant2_2462

Power Spectral Density Measurement



11N40MIMO_total_2462

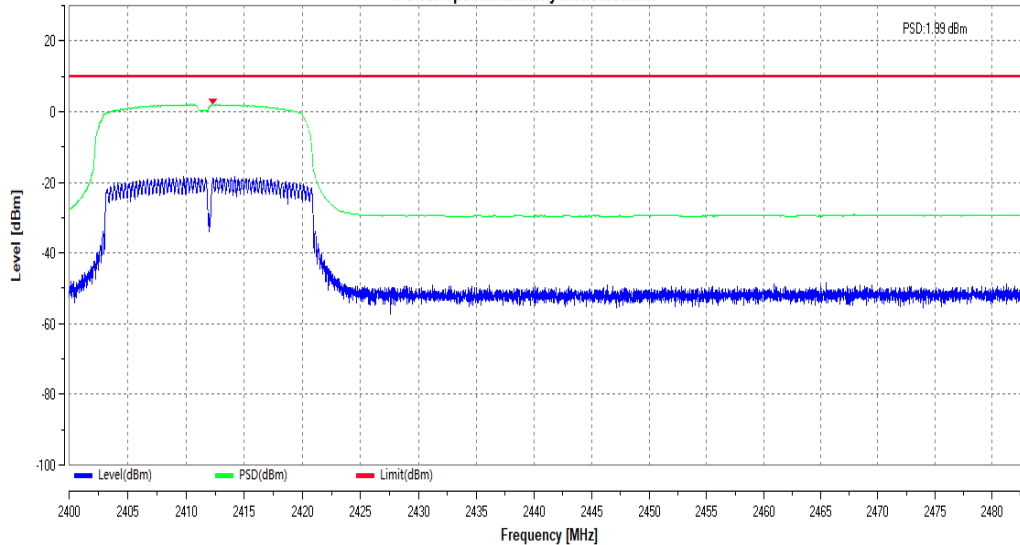
Power Spectral Density Measurement



Beamforming

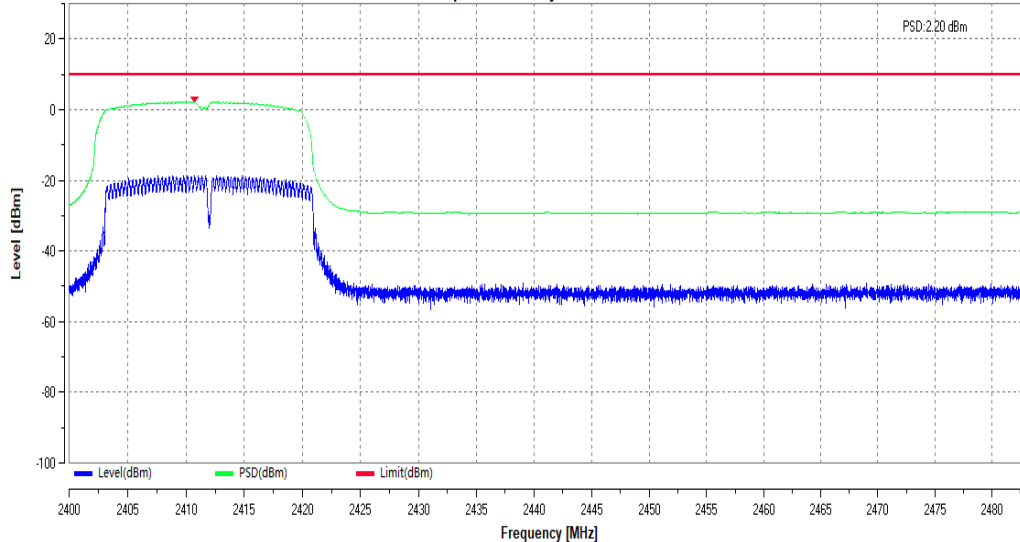
11N20MIMO_Ant1_2412

Power Spectral Density Measurement



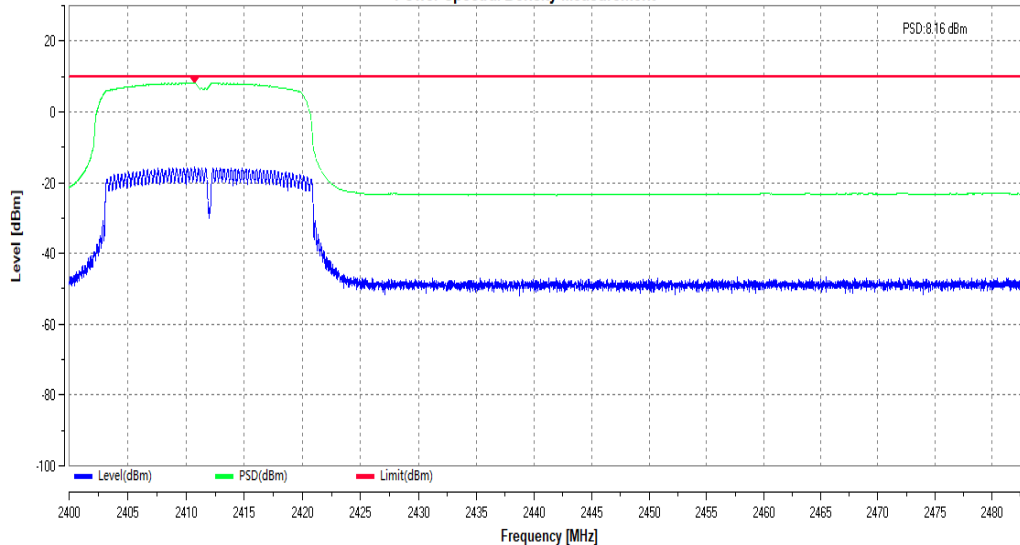
11N20MIMO_Ant2_2412

Power Spectral Density Measurement



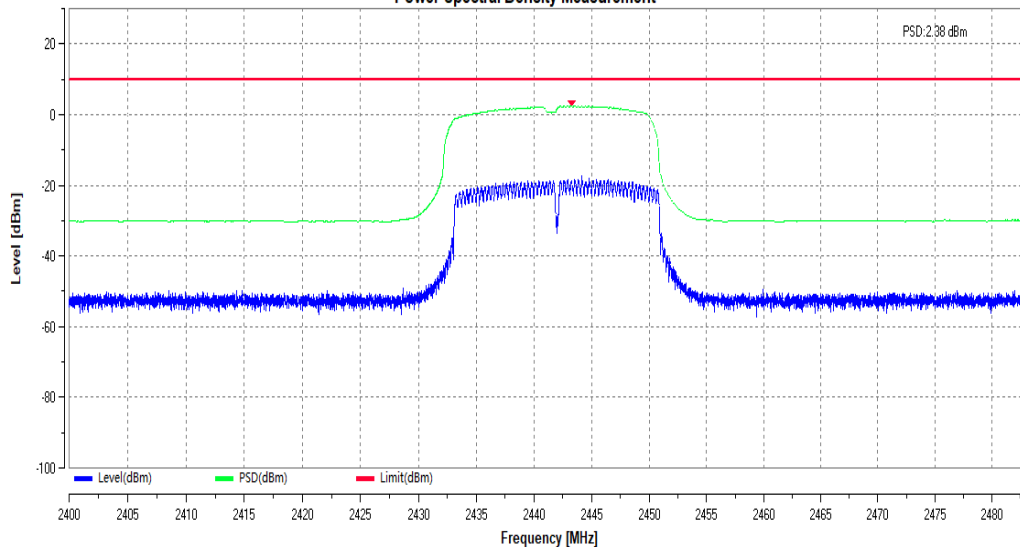
11N20MIMO_total_2412

Power Spectral Density Measurement



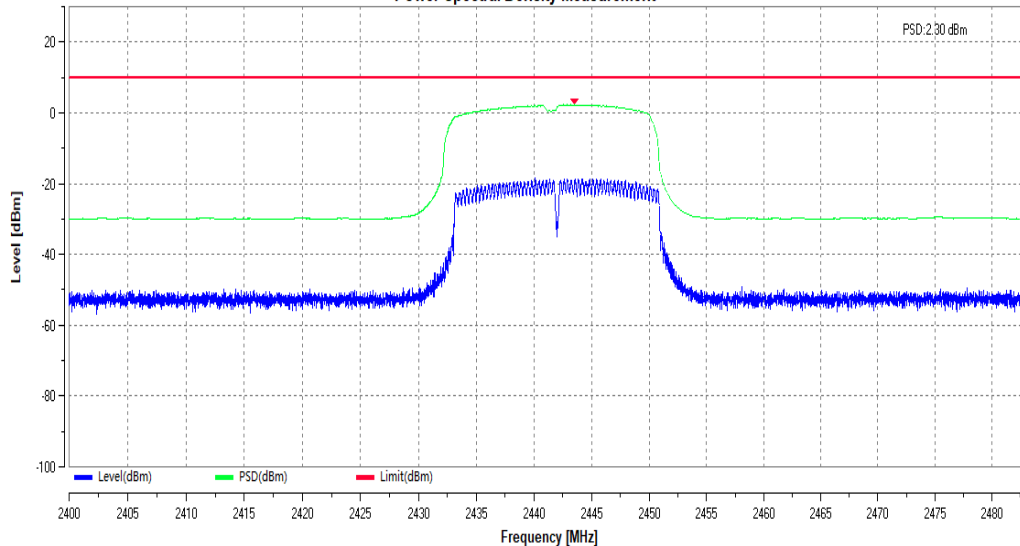
11N20MIMO_Ant1_2442

Power Spectral Density Measurement



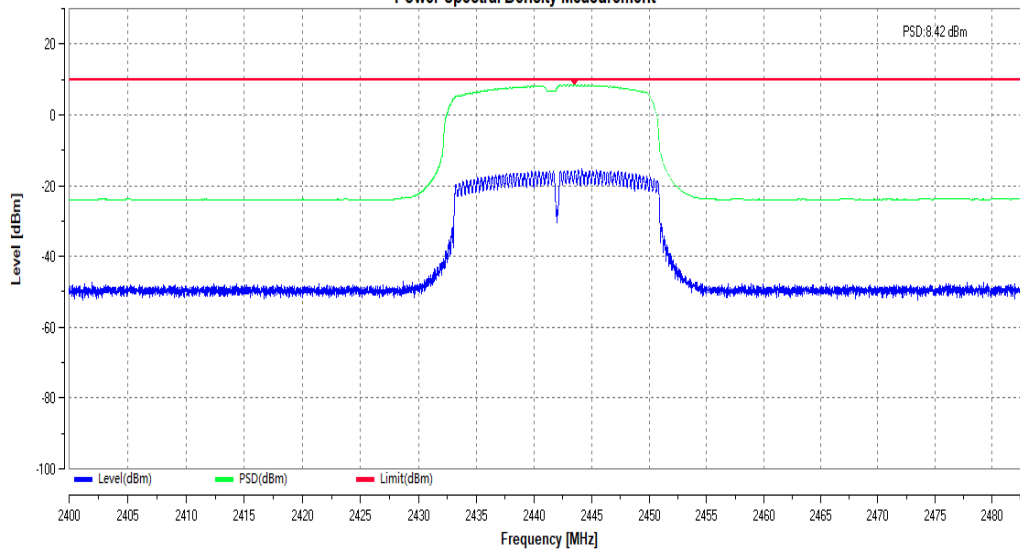
11N20MIMO_Ant2_2442

Power Spectral Density Measurement



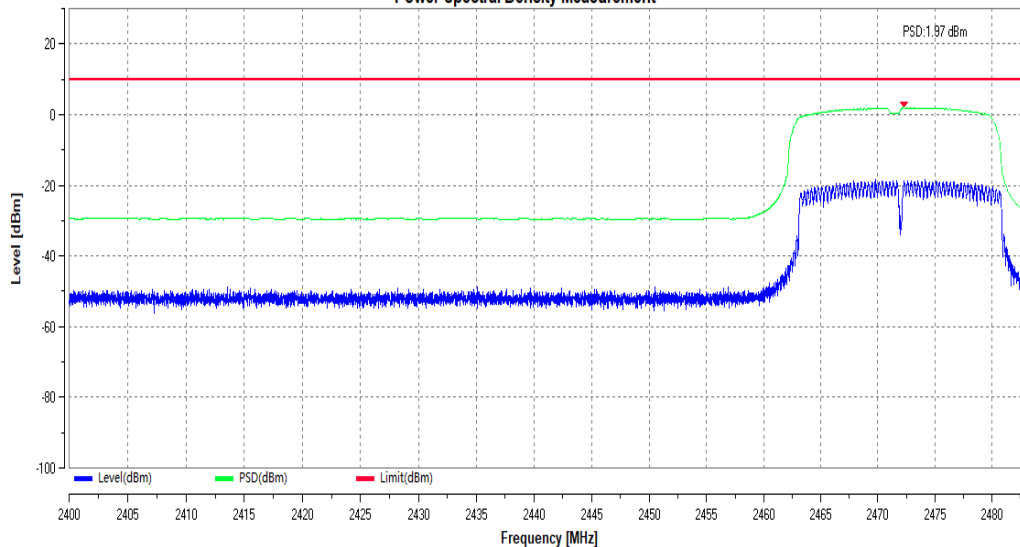
11N20MIMO_total_2442

Power Spectral Density Measurement



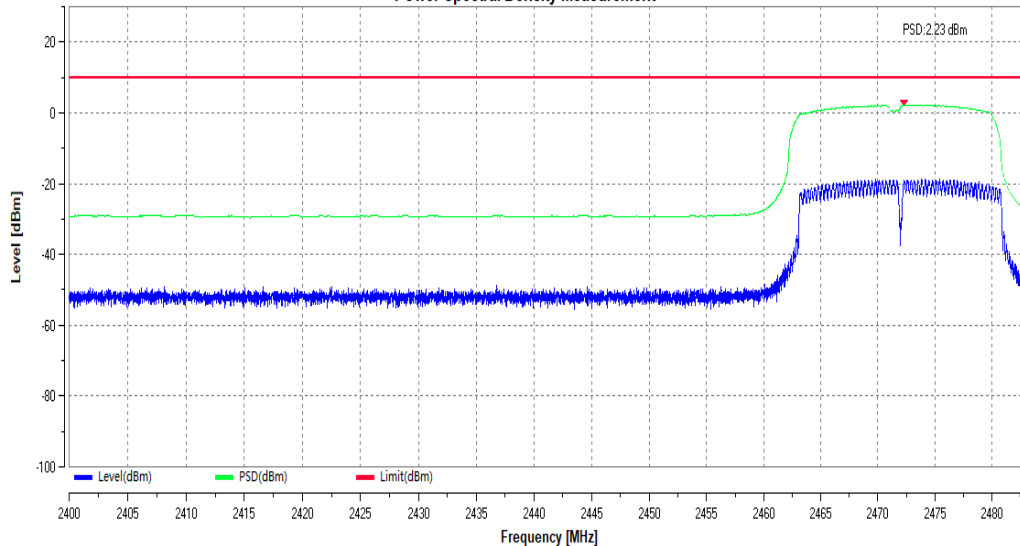
11N20MIMO_Ant1_2472

Power Spectral Density Measurement



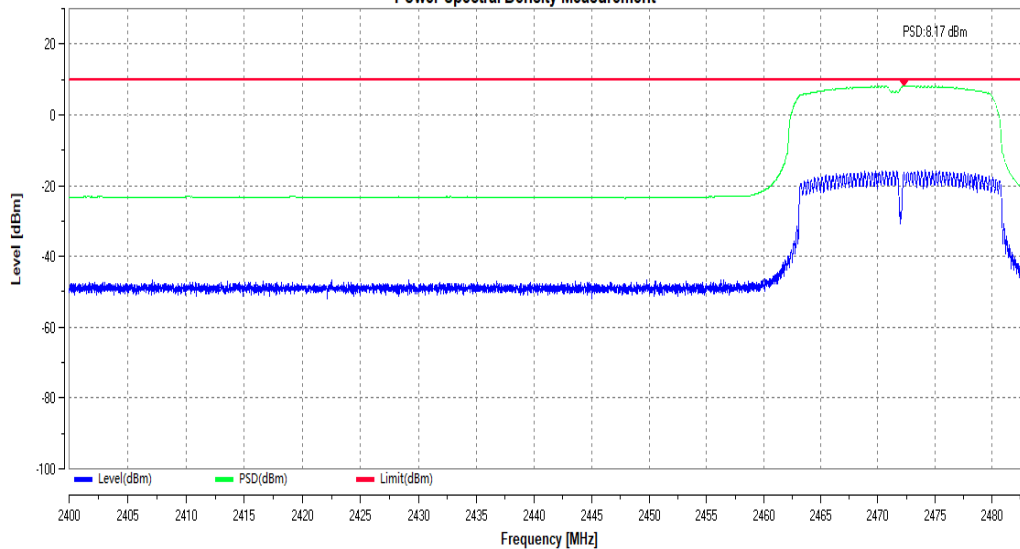
11N20MIMO_Ant2_2472

Power Spectral Density Measurement



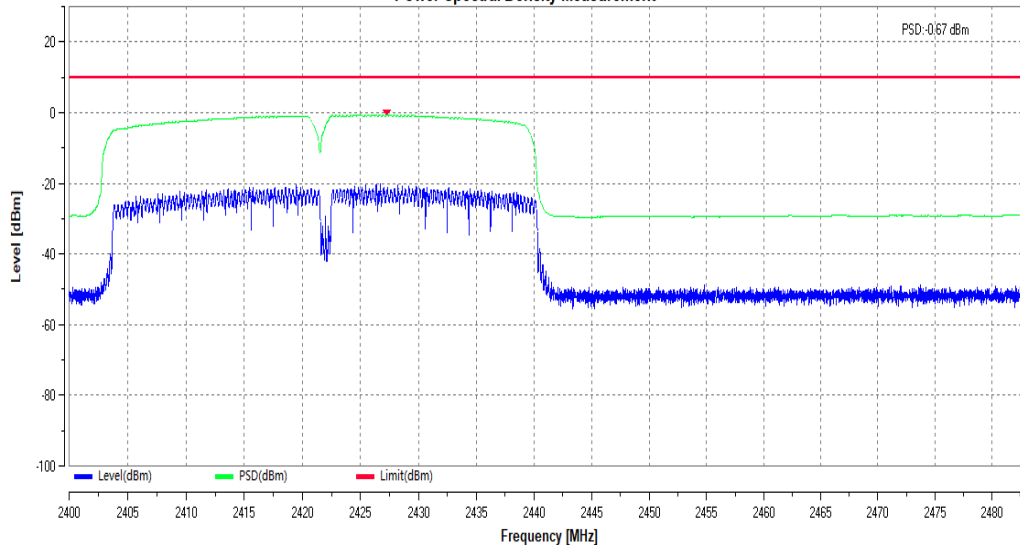
11N20MIMO_total_2472

Power Spectral Density Measurement



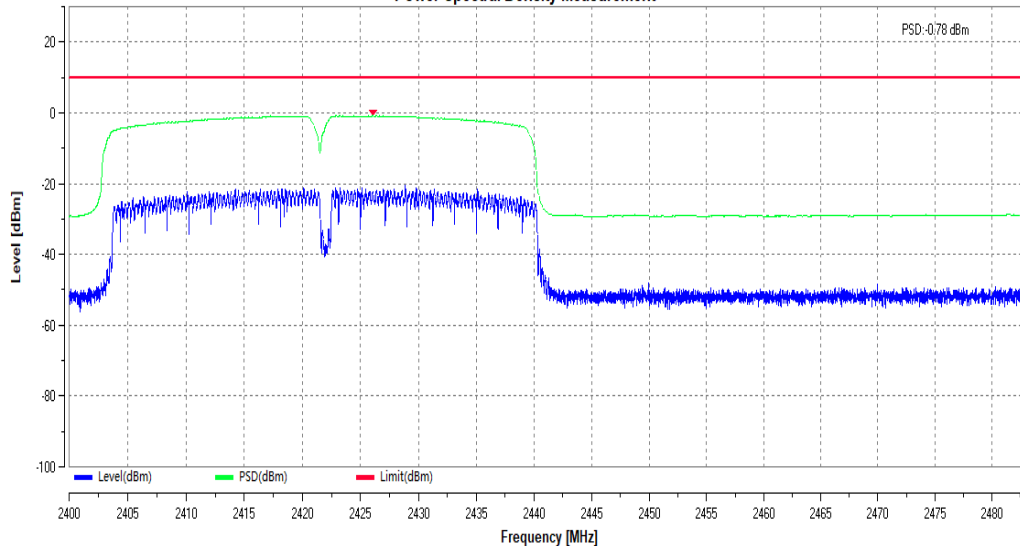
11N40MIMO_Ant1_2422

Power Spectral Density Measurement



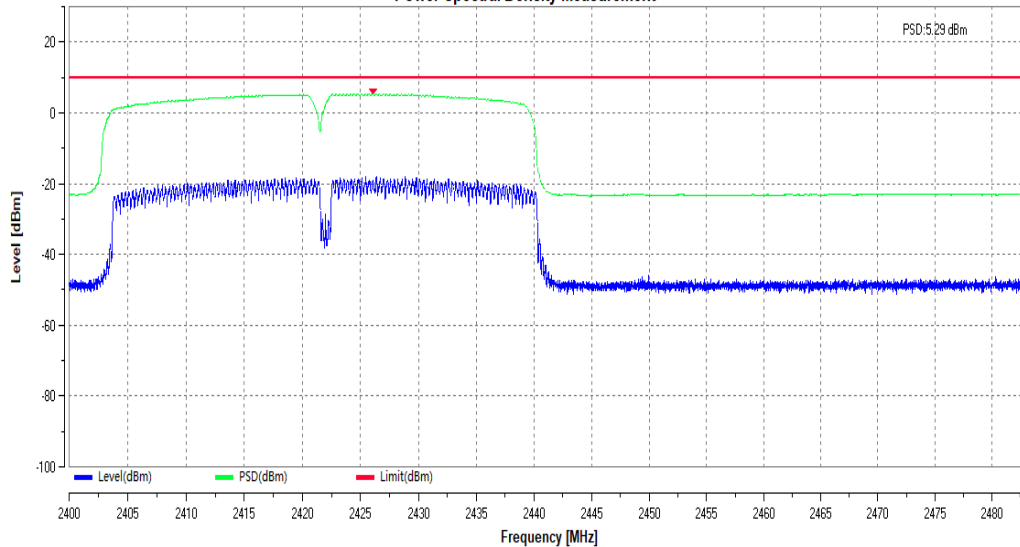
11N40MIMO_Ant2_2422

Power Spectral Density Measurement



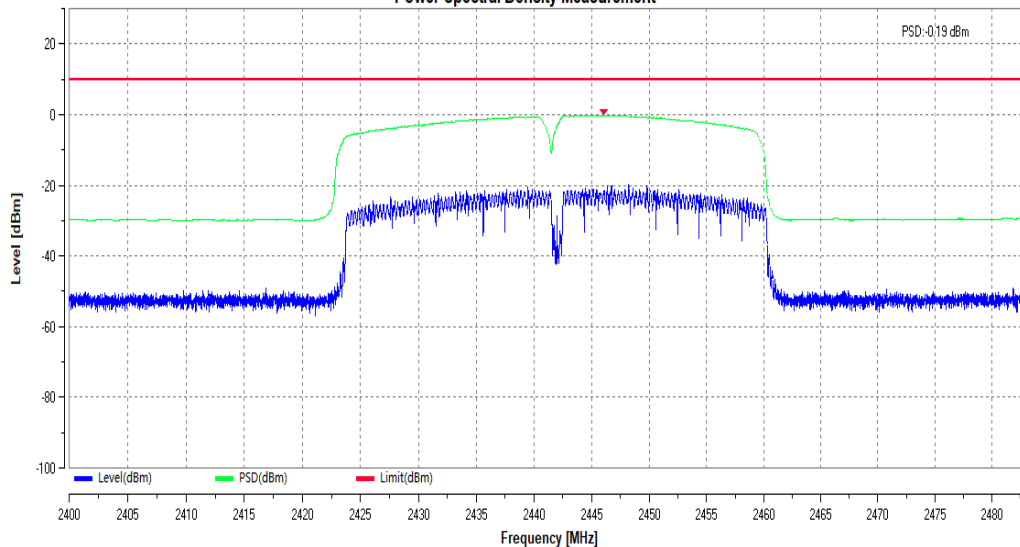
11N40MIMO_total_2422

Power Spectral Density Measurement



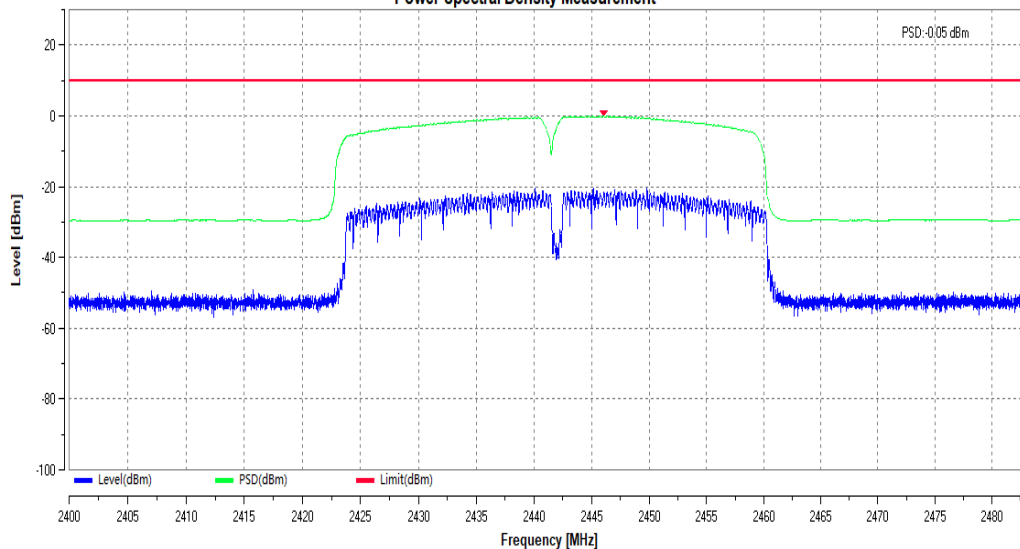
11N40MIMO_Ant1_2442

Power Spectral Density Measurement



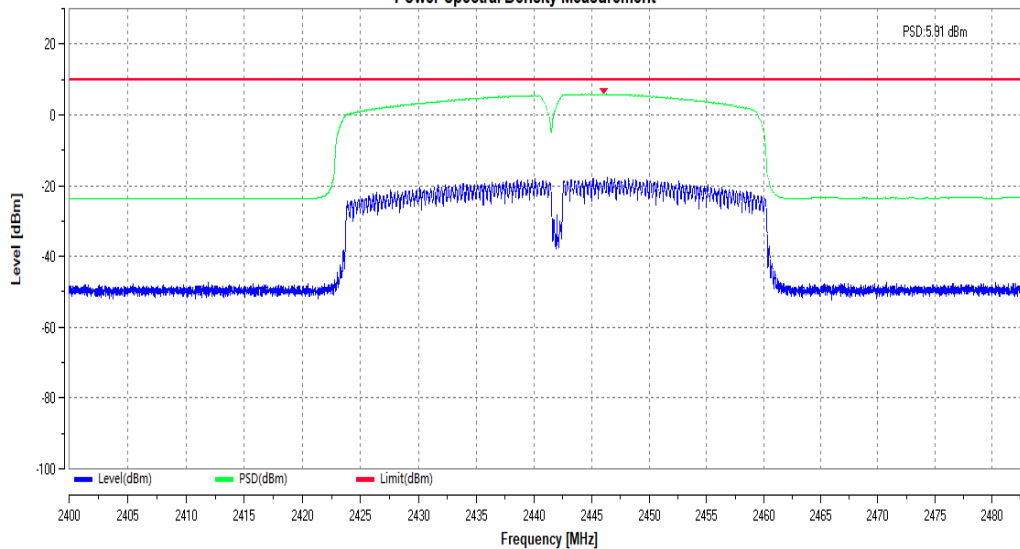
11N40MIMO_Ant2_2442

Power Spectral Density Measurement



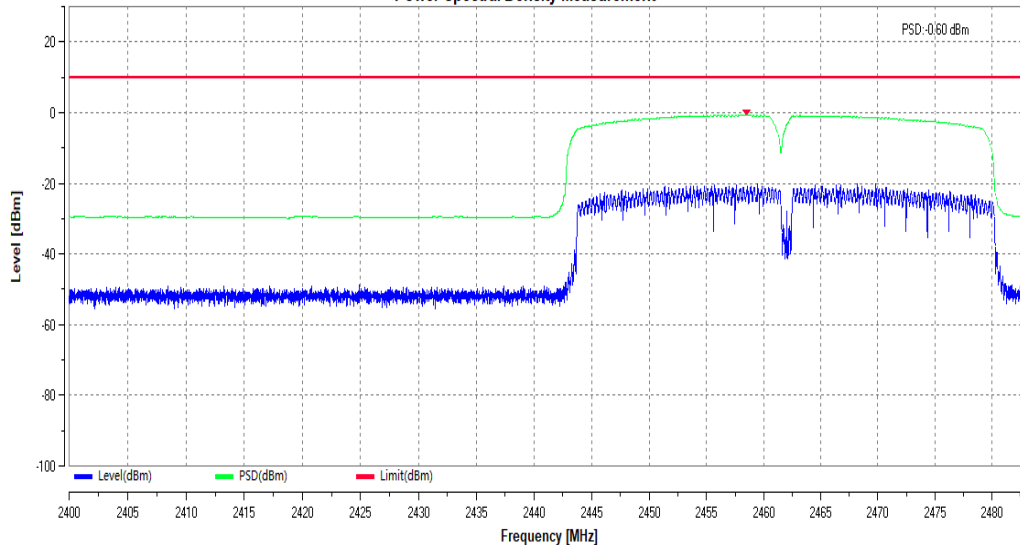
11N40MIMO_total_2442

Power Spectral Density Measurement



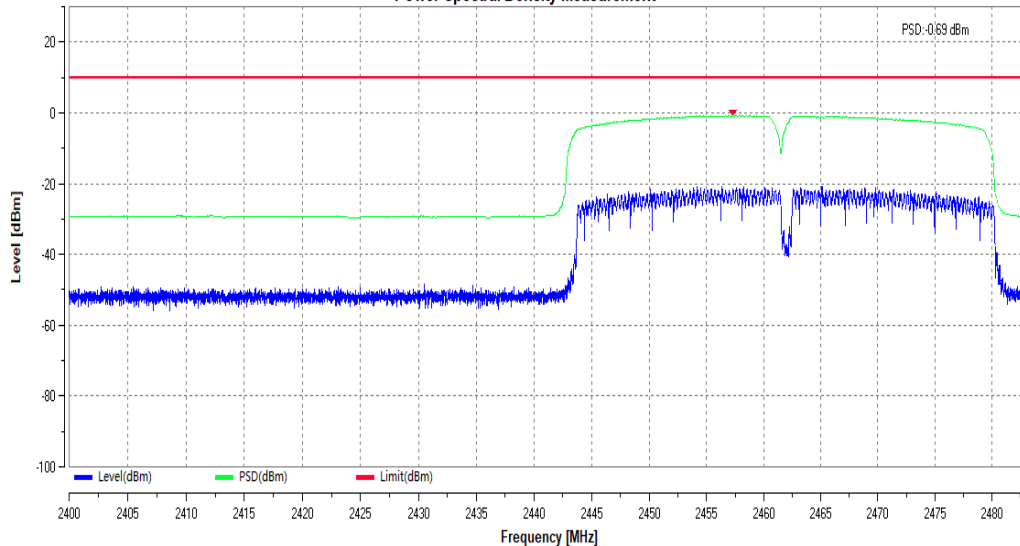
11N40MIMO_Ant1_2462

Power Spectral Density Measurement



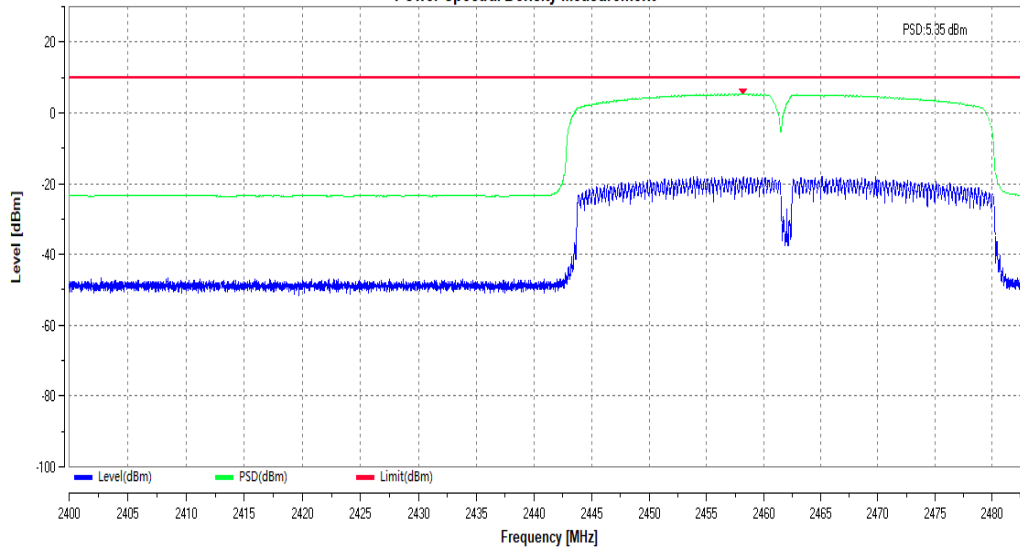
11N40MIMO_Ant2_2462

Power Spectral Density Measurement



11N40MIMO_total_2462

Power Spectral Density Measurement



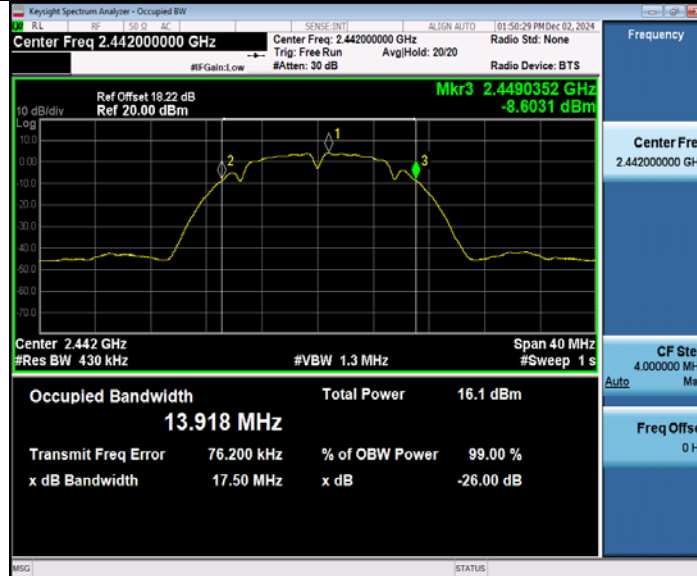
Appendix C: Occupied Channel Bandwidth Test Result

Test Mode	Antenna	Frequency[MHz]	OCB[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11B	Ant1	2412	14.087	2404.9636	2419.0506	2400 to 2483.5	PASS
	Ant2	2412	13.964	2405.0023	2418.9663	2400 to 2483.5	PASS
	Ant1	2442	14.012	2435.1057	2449.1177	2400 to 2483.5	PASS
	Ant2	2442	13.918	2435.1172	2449.0352	2400 to 2483.5	PASS
	Ant1	2472	14.088	2465.0333	2479.1213	2400 to 2483.5	PASS
	Ant2	2472	13.986	2465.0524	2479.0384	2400 to 2483.5	PASS
11G	Ant1	2412	16.486	2403.7492	2420.2352	2400 to 2483.5	PASS
	Ant2	2412	16.489	2403.7406	2420.2296	2400 to 2483.5	PASS
	Ant1	2442	16.464	2433.7899	2450.2539	2400 to 2483.5	PASS
	Ant2	2442	16.463	2433.7837	2450.2467	2400 to 2483.5	PASS
	Ant1	2472	16.492	2463.7640	2480.2560	2400 to 2483.5	PASS
	Ant2	2472	16.487	2463.7613	2480.2483	2400 to 2483.5	PASS
11N20MIMO	Ant1	2412	17.657	2403.1630	2420.8200	2400 to 2483.5	PASS
	Ant2	2412	17.654	2403.1595	2420.8135	2400 to 2483.5	PASS
	Ant1	2442	17.624	2433.2095	2450.8335	2400 to 2483.5	PASS
	Ant2	2442	17.621	2433.2079	2450.8289	2400 to 2483.5	PASS
	Ant1	2472	17.657	2463.1747	2480.8317	2400 to 2483.5	PASS
	Ant2	2472	17.652	2463.1818	2480.8338	2400 to 2483.5	PASS
11N40MIMO	Ant1	2422	35.967	2404.0768	2440.0438	2400 to 2483.5	PASS
	Ant2	2422	35.960	2404.0538	2440.0138	2400 to 2483.5	PASS
	Ant1	2442	35.739	2424.1991	2459.9381	2400 to 2483.5	PASS
	Ant2	2442	35.739	2424.1751	2459.9141	2400 to 2483.5	PASS
	Ant1	2462	35.917	2444.0320	2479.9490	2400 to 2483.5	PASS
	Ant2	2462	35.911	2444.0380	2479.9490	2400 to 2483.5	PASS

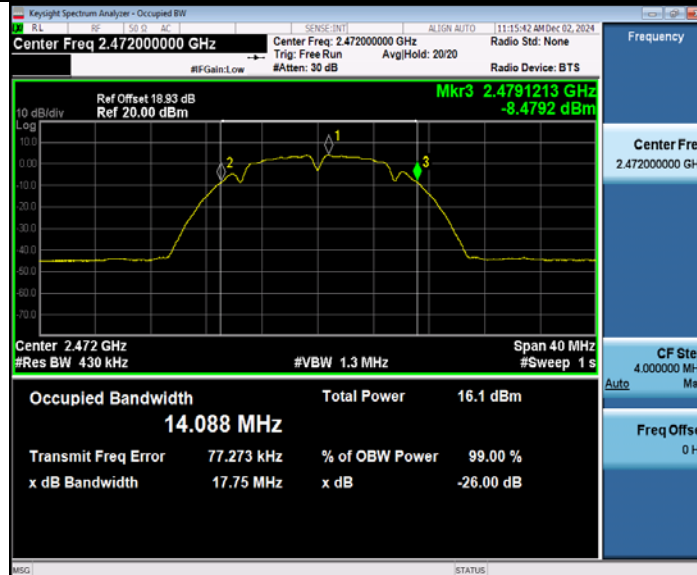
Test Graphs



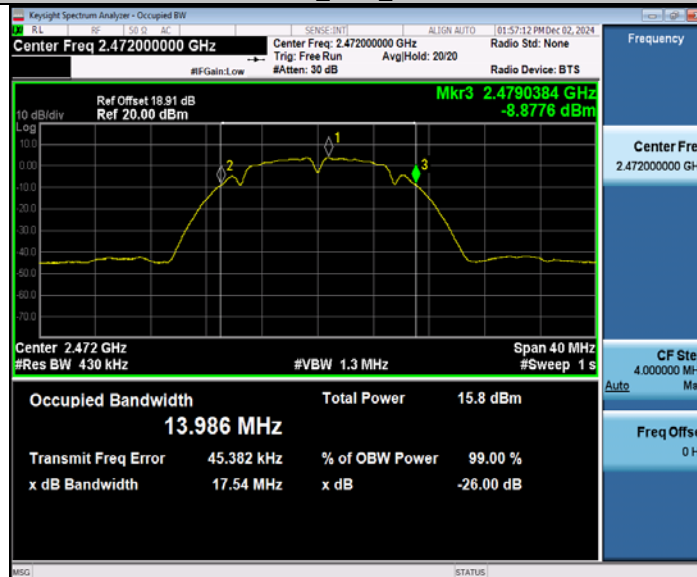
11B_Ant2_2442



11B_Ant1_2472



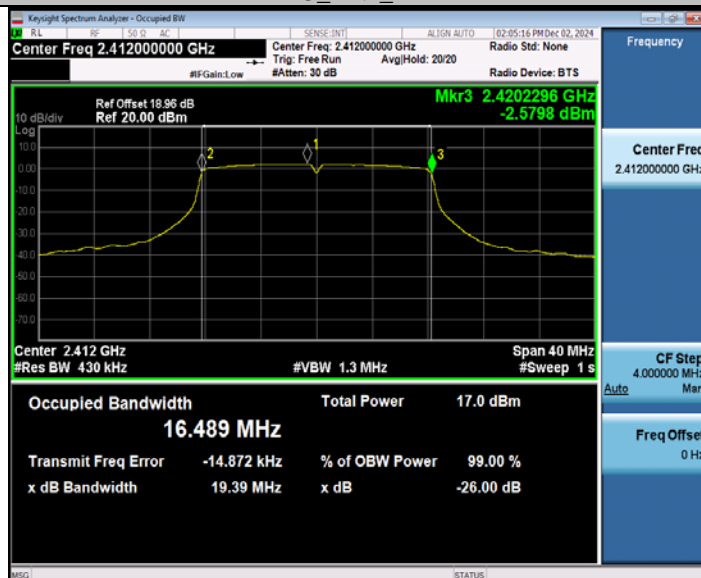
11B_Ant2_2472



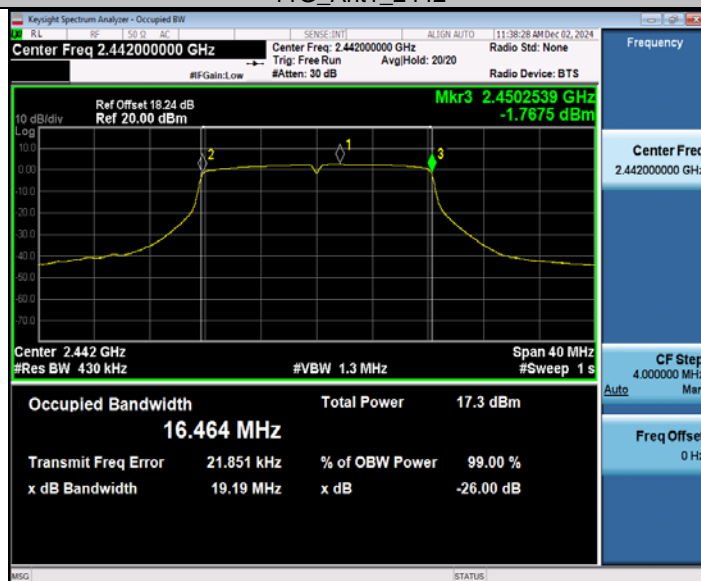
11G_Ant1_2412



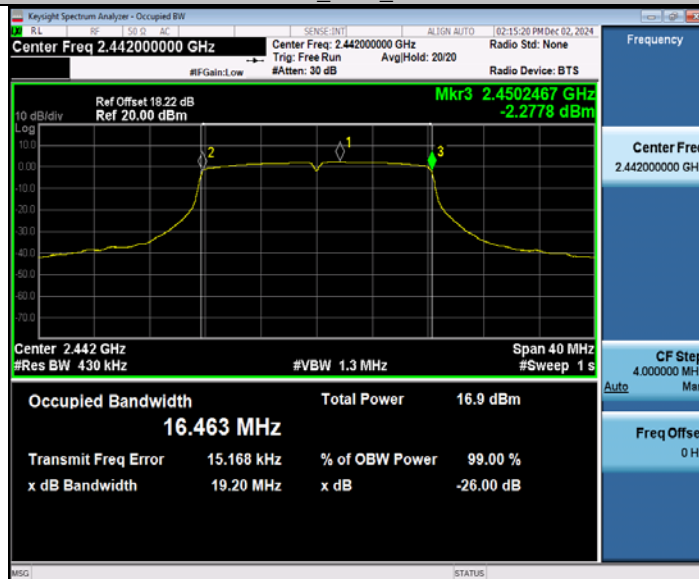
11G_Ant2_2412



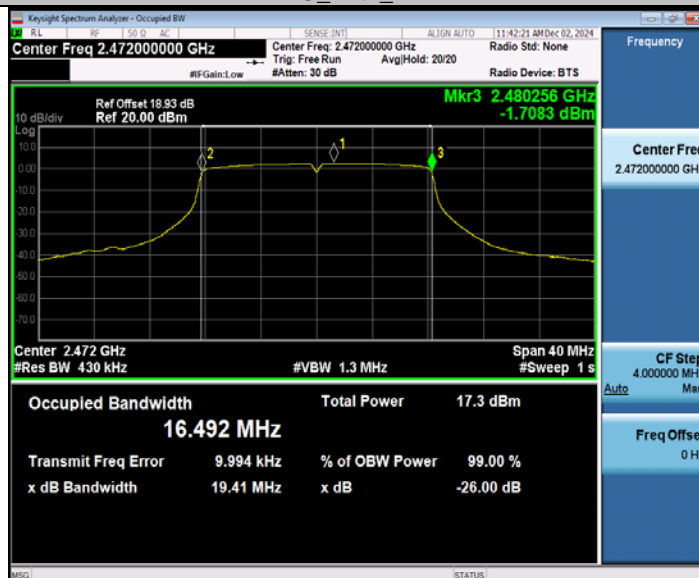
11G_Ant1_2442



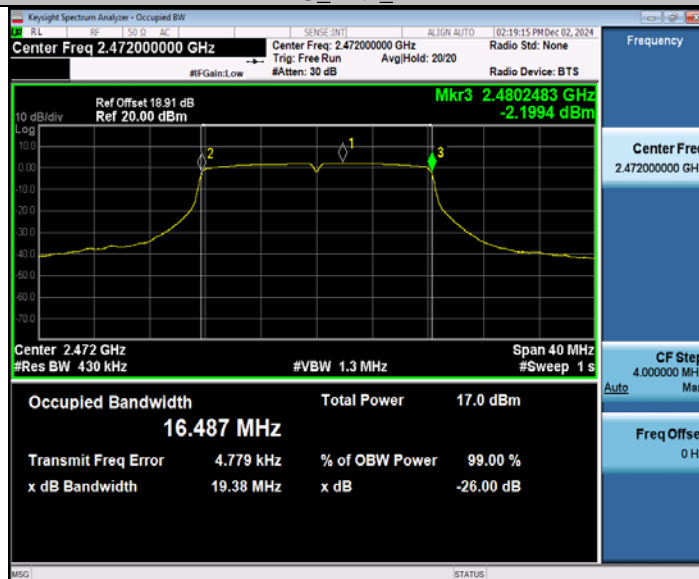
11G_Ant2_2442



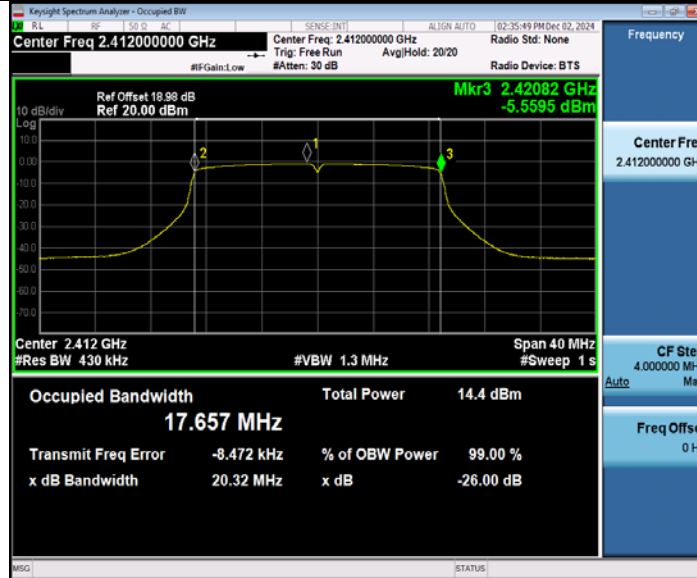
11G_Ant1_2472



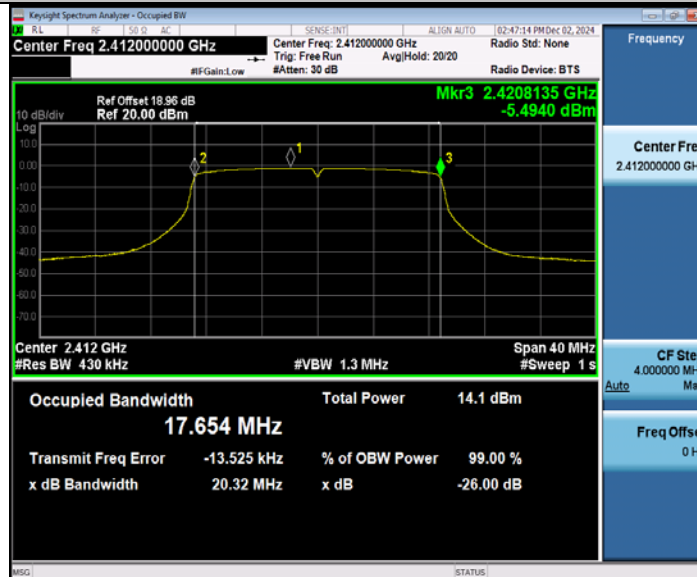
11G_Ant2_2472



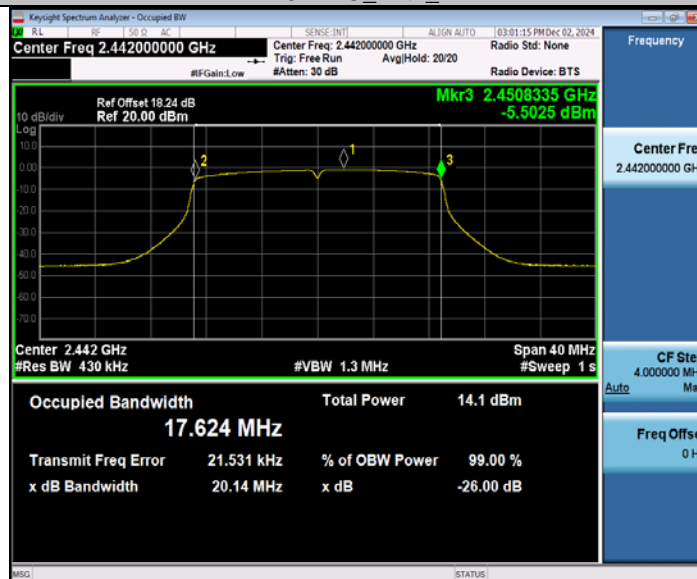
11N20MIMO_Ant1_2412



11N20MIMO_Ant2_2412



11N20MIMO_Ant1_2442



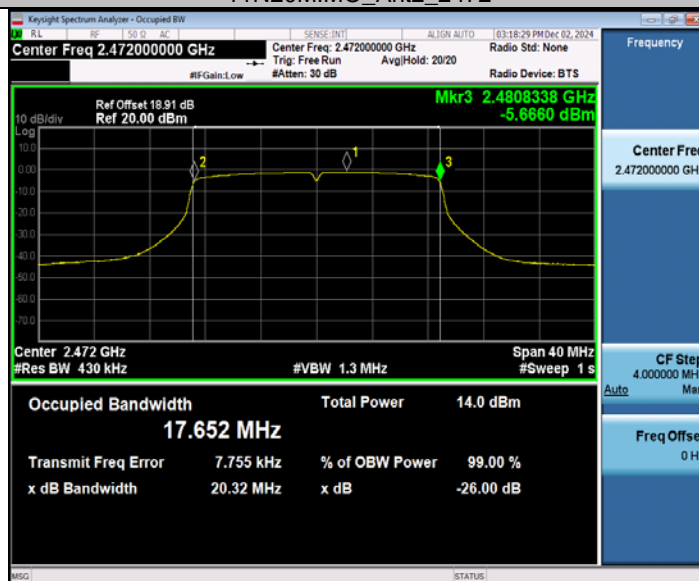
11N20MIMO_Ant2_2442



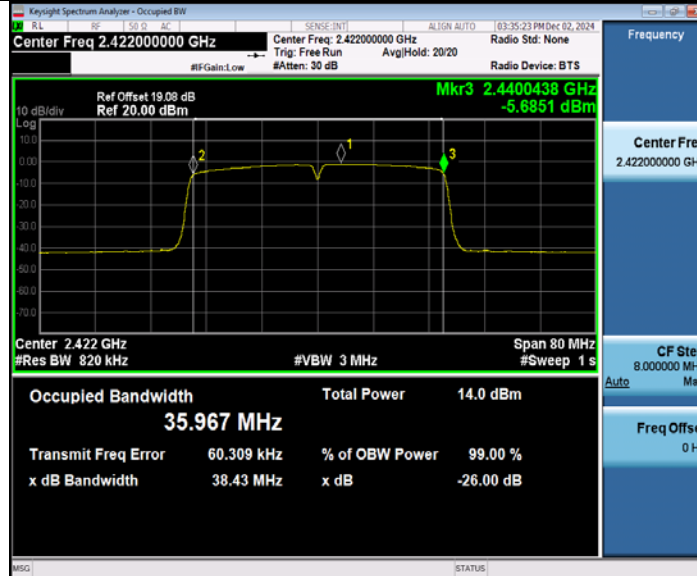
11N20MIMO_Ant1_2472



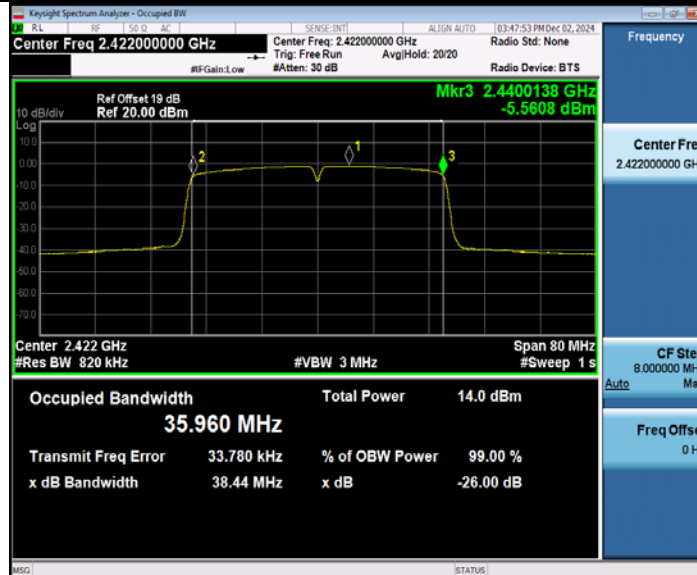
11N20MIMO_Ant2_2472



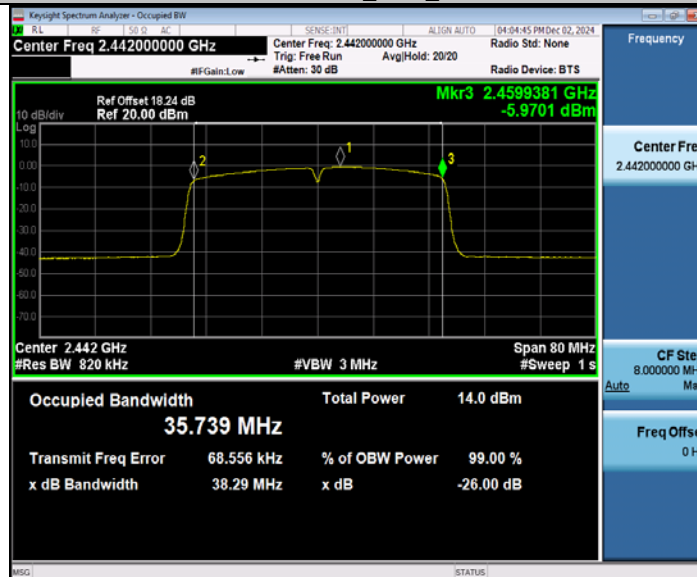
11N40MIMO_Ant1_2422



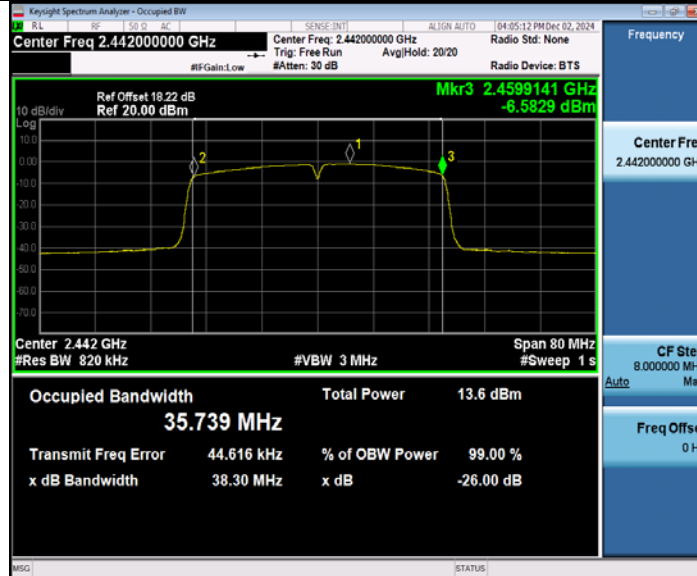
11N40MIMO_Ant2_2422



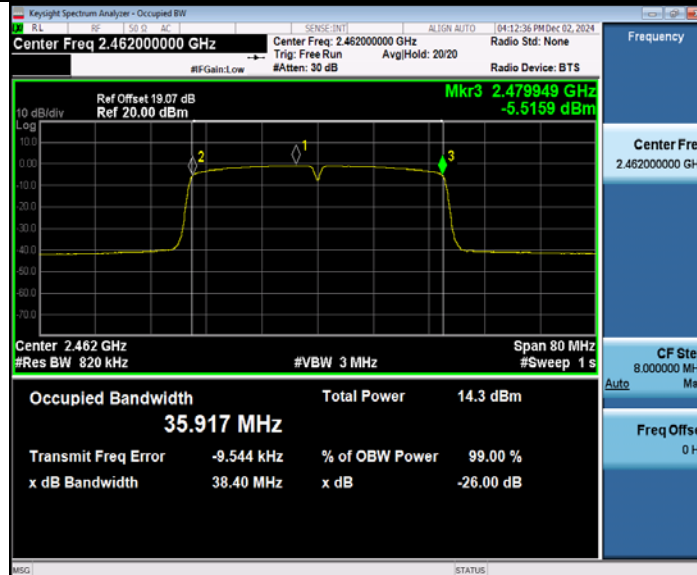
11N40MIMO_Ant1_2442



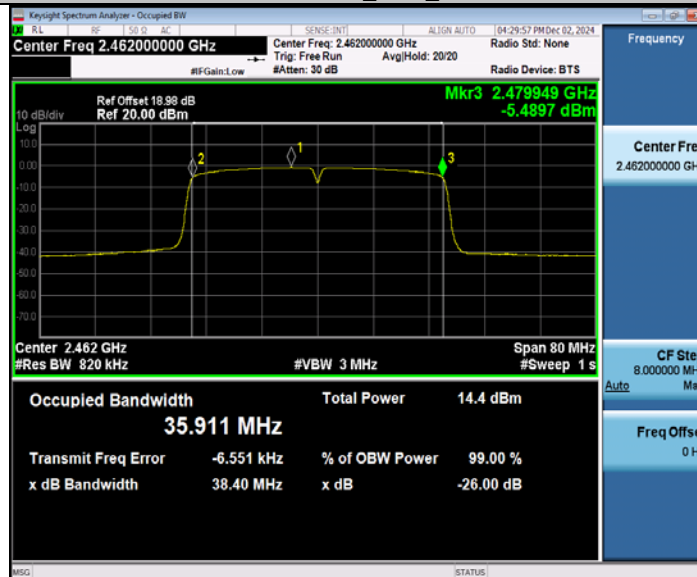
11N40MIMO_Ant2_2442



11N40MIMO_Ant1_2462



11N40MIMO_Ant2_2462



Appendix D: Transmitter Unwanted Emissions In The Out-Of-Band Domain

Test Result

Test Mode	Antenna	Frequency[MHz]	Freq. [MHz]	Level [dBm/MHz]	Limit [dBm/MHz]	Verdict
11B	Ant1	2412	2372.326	-44.27	-20.00	PASS
			2372.413	-44.25	-20.00	PASS
			2373.413	-44.25	-20.00	PASS
			2374.413	-44.26	-20.00	PASS
			2375.413	-44.93	-20.00	PASS
			2376.413	-44.26	-20.00	PASS
			2377.413	-44.30	-20.00	PASS
			2378.413	-44.30	-20.00	PASS
			2379.413	-44.28	-20.00	PASS
			2380.413	-44.92	-20.00	PASS
			2381.413	-44.86	-20.00	PASS
			2382.413	-44.69	-20.00	PASS
			2383.413	-44.80	-20.00	PASS
			2384.413	-44.77	-20.00	PASS
			2385.413	-44.70	-20.00	PASS
			2386.413	-44.62	-10.00	PASS
			2386.5	-44.60	-10.00	PASS
			2387.5	-44.60	-10.00	PASS
			2388.5	-44.53	-10.00	PASS
			2389.5	-44.47	-10.00	PASS
			2390.5	-44.22	-10.00	PASS
			2391.5	-44.12	-10.00	PASS
			2392.5	-43.87	-10.00	PASS
			2393.5	-42.86	-10.00	PASS
			2394.5	-41.94	-10.00	PASS
			2395.5	-41.62	-10.00	PASS
			2396.5	-39.36	-10.00	PASS
			2397.5	-38.67	-10.00	PASS
			2398.5	-40.50	-10.00	PASS
			2399.5	-40.13	-10.00	PASS
			2484	-42.88	-10.00	PASS
			2485	-43.00	-10.00	PASS
			2486	-43.20	-10.00	PASS
			2487	-42.41	-10.00	PASS
			2488	-42.68	-10.00	PASS
			2489	-42.32	-10.00	PASS
			2490	-42.03	-10.00	PASS
			2491	-41.94	-10.00	PASS
			2492	-42.56	-10.00	PASS
			2493	-42.11	-10.00	PASS
			2494	-42.22	-10.00	PASS
			2495	-42.09	-10.00	PASS
			2496	-42.23	-10.00	PASS
			2497	-42.85	-10.00	PASS
			2497.087	-42.92	-10.00	PASS
			2498.087	-42.47	-20.00	PASS
			2499.087	-42.68	-20.00	PASS
			2500.087	-42.78	-20.00	PASS
			2501.087	-42.63	-20.00	PASS
			2502.087	-42.51	-20.00	PASS
			2503.087	-42.69	-20.00	PASS
			2504.087	-42.65	-20.00	PASS
			2505.087	-42.65	-20.00	PASS
			2506.087	-42.65	-20.00	PASS
			2507.087	-42.94	-20.00	PASS
			2508.087	-42.61	-20.00	PASS
			2509.087	-42.54	-20.00	PASS
			2510.087	-42.34	-20.00	PASS
			2511.087	-42.38	-20.00	PASS
			2511.174	-42.38	-20.00	PASS
	Ant2	2412	2372.536	-44.25	-20.00	PASS
			2372.572	-44.26	-20.00	PASS

			2373.536	-44.23	-20.00	PASS
			2374.536	-44.19	-20.00	PASS
			2375.536	-44.19	-20.00	PASS
			2376.536	-44.17	-20.00	PASS
			2377.536	-44.18	-20.00	PASS
			2378.536	-44.16	-20.00	PASS
			2379.536	-44.11	-20.00	PASS
			2380.536	-44.73	-20.00	PASS
			2381.536	-44.66	-20.00	PASS
			2382.536	-44.63	-20.00	PASS
			2383.536	-44.59	-20.00	PASS
			2384.536	-44.53	-20.00	PASS
			2385.536	-44.46	-20.00	PASS
			2386.5	-44.42	-10.00	PASS
			2386.536	-44.39	-10.00	PASS
			2387.5	-44.38	-10.00	PASS
			2388.5	-44.31	-10.00	PASS
			2389.5	-44.26	-10.00	PASS
			2390.5	-44.01	-10.00	PASS
			2391.5	-43.97	-10.00	PASS
			2392.5	-43.42	-10.00	PASS
			2393.5	-41.85	-10.00	PASS
			2394.5	-40.41	-10.00	PASS
			2395.5	-39.39	-10.00	PASS
			2396.5	-36.41	-10.00	PASS
			2397.5	-35.89	-10.00	PASS
			2398.5	-36.68	-10.00	PASS
			2399.5	-37.39	-10.00	PASS
			2484	-43.06	-10.00	PASS
			2485	-42.91	-10.00	PASS
			2486	-43.01	-10.00	PASS
			2487	-42.51	-10.00	PASS
			2488	-42.33	-10.00	PASS
			2489	-41.97	-10.00	PASS
			2490	-41.77	-10.00	PASS
			2491	-41.74	-10.00	PASS
			2492	-42.58	-10.00	PASS
			2493	-41.87	-10.00	PASS
			2494	-42.08	-10.00	PASS
			2495	-41.93	-10.00	PASS
			2496	-42.10	-10.00	PASS
			2496.964	-42.88	-10.00	PASS
			2497	-42.90	-10.00	PASS
			2497.964	-42.49	-20.00	PASS
			2498.964	-42.62	-20.00	PASS
			2499.964	-43.16	-20.00	PASS
			2500.964	-42.76	-20.00	PASS
			2501.964	-42.82	-20.00	PASS
			2502.964	-42.71	-20.00	PASS
			2503.964	-42.69	-20.00	PASS
			2504.964	-42.94	-20.00	PASS
			2505.964	-42.93	-20.00	PASS
			2506.964	-42.71	-20.00	PASS
			2507.964	-42.93	-20.00	PASS
			2508.964	-42.78	-20.00	PASS
			2509.964	-42.60	-20.00	PASS
			2510.928	-42.37	-20.00	PASS
			2510.964	-42.35	-20.00	PASS
	Ant1	2472	2372.324	-44.37	-20.00	PASS
			2372.412	-44.36	-20.00	PASS
			2373.412	-44.39	-20.00	PASS
			2374.412	-44.41	-20.00	PASS
			2375.412	-44.39	-20.00	PASS
			2376.412	-44.38	-20.00	PASS
			2377.412	-44.39	-20.00	PASS
			2378.412	-44.39	-20.00	PASS
			2379.412	-44.38	-20.00	PASS
			2380.412	-45.00	-20.00	PASS

			2381.412	-45.00	-20.00	PASS
			2382.412	-44.93	-20.00	PASS
			2383.412	-44.97	-20.00	PASS
			2384.412	-44.89	-20.00	PASS
			2385.412	-44.75	-20.00	PASS
			2386.412	-44.87	-10.00	PASS
			2386.5	-44.86	-10.00	PASS
			2387.5	-44.71	-10.00	PASS
			2388.5	-44.54	-10.00	PASS
			2389.5	-44.57	-10.00	PASS
			2390.5	-44.40	-10.00	PASS
			2391.5	-44.37	-10.00	PASS
			2392.5	-44.34	-10.00	PASS
			2393.5	-44.35	-10.00	PASS
			2394.5	-44.44	-10.00	PASS
			2395.5	-44.45	-10.00	PASS
			2396.5	-44.49	-10.00	PASS
			2397.5	-44.59	-10.00	PASS
			2398.5	-44.58	-10.00	PASS
			2399.5	-44.59	-10.00	PASS
			2484	-40.98	-10.00	PASS
			2485	-41.16	-10.00	PASS
			2486	-40.20	-10.00	PASS
			2487	-40.17	-10.00	PASS
			2488	-41.61	-10.00	PASS
			2489	-42.20	-10.00	PASS
			2490	-42.12	-10.00	PASS
			2491	-42.68	-10.00	PASS
			2492	-42.80	-10.00	PASS
			2493	-42.78	-10.00	PASS
			2494	-42.87	-10.00	PASS
			2495	-42.75	-10.00	PASS
			2496	-42.77	-10.00	PASS
			2497	-42.62	-10.00	PASS
			2497.088	-42.61	-10.00	PASS
			2498.088	-42.43	-20.00	PASS
			2499.088	-42.40	-20.00	PASS
			2500.088	-42.10	-20.00	PASS
			2501.088	-42.21	-20.00	PASS
			2502.088	-41.82	-20.00	PASS
			2503.088	-42.19	-20.00	PASS
			2504.088	-42.26	-20.00	PASS
			2505.088	-42.52	-20.00	PASS
			2506.088	-42.64	-20.00	PASS
			2507.088	-42.28	-20.00	PASS
			2508.088	-42.76	-20.00	PASS
			2509.088	-42.66	-20.00	PASS
			2510.088	-42.09	-20.00	PASS
			2511.088	-42.14	-20.00	PASS
			2511.176	-42.16	-20.00	PASS
	Ant2	2472	2372.514	-44.29	-20.00	PASS
			2372.528	-44.30	-20.00	PASS
			2373.514	-44.25	-20.00	PASS
			2374.514	-44.26	-20.00	PASS
			2375.514	-44.31	-20.00	PASS
			2376.514	-44.31	-20.00	PASS
			2377.514	-44.27	-20.00	PASS
			2378.514	-44.30	-20.00	PASS
			2379.514	-44.25	-20.00	PASS
			2380.514	-44.86	-20.00	PASS
			2381.514	-44.85	-20.00	PASS
			2382.514	-44.82	-20.00	PASS
			2383.514	-44.79	-20.00	PASS
			2384.514	-44.71	-20.00	PASS
			2385.514	-44.50	-20.00	PASS
			2386.5	-44.66	-10.00	PASS
			2386.514	-44.67	-10.00	PASS
			2387.5	-44.49	-10.00	PASS

			2388.5	-44.30	-10.00	PASS
			2389.5	-44.30	-10.00	PASS
			2390.5	-44.16	-10.00	PASS
			2391.5	-44.21	-10.00	PASS
			2392.5	-44.16	-10.00	PASS
			2393.5	-44.10	-10.00	PASS
			2394.5	-44.21	-10.00	PASS
			2395.5	-44.28	-10.00	PASS
			2396.5	-44.35	-10.00	PASS
			2397.5	-44.47	-10.00	PASS
			2398.5	-44.47	-10.00	PASS
			2399.5	-44.47	-10.00	PASS
			2484	-39.68	-10.00	PASS
			2485	-37.32	-10.00	PASS
			2486	-36.78	-10.00	PASS
			2487	-36.44	-10.00	PASS
			2488	-38.34	-10.00	PASS
			2489	-39.76	-10.00	PASS
			2490	-40.77	-10.00	PASS
			2491	-41.96	-10.00	PASS
			2492	-42.84	-10.00	PASS
			2493	-43.05	-10.00	PASS
			2494	-43.07	-10.00	PASS
			2495	-43.02	-10.00	PASS
			2496	-42.77	-10.00	PASS
			2496.986	-42.68	-10.00	PASS
			2497	-42.65	-10.00	PASS
			2497.986	-42.29	-20.00	PASS
			2498.986	-42.47	-20.00	PASS
			2499.986	-42.42	-20.00	PASS
			2500.986	-42.37	-20.00	PASS
			2501.986	-42.49	-20.00	PASS
			2502.986	-42.24	-20.00	PASS
			2503.986	-42.29	-20.00	PASS
			2504.986	-42.65	-20.00	PASS
			2505.986	-42.82	-20.00	PASS
			2506.986	-42.21	-20.00	PASS
			2507.986	-42.73	-20.00	PASS
			2508.986	-42.60	-20.00	PASS
			2509.986	-42.06	-20.00	PASS
			2510.972	-41.86	-20.00	PASS
			2510.986	-41.89	-20.00	PASS
11G	Ant1	2412	2367.528	-44.07	-20.00	PASS
			2368.014	-44.04	-20.00	PASS
			2369.014	-44.05	-20.00	PASS
			2370.014	-44.14	-20.00	PASS
			2371.014	-44.19	-20.00	PASS
			2372.014	-44.09	-20.00	PASS
			2373.014	-44.12	-20.00	PASS
			2374.014	-43.96	-20.00	PASS
			2375.014	-43.90	-20.00	PASS
			2376.014	-43.84	-20.00	PASS
			2377.014	-43.60	-20.00	PASS
			2378.014	-43.66	-20.00	PASS
			2379.014	-43.26	-20.00	PASS
			2380.014	-44.00	-20.00	PASS
			2381.014	-43.64	-20.00	PASS
			2382.014	-43.11	-20.00	PASS
			2383.014	-42.96	-20.00	PASS
			2384.014	-41.87	-10.00	PASS
			2384.5	-41.62	-10.00	PASS
			2385.5	-40.91	-10.00	PASS
			2386.5	-40.04	-10.00	PASS
			2387.5	-40.01	-10.00	PASS
			2388.5	-37.95	-10.00	PASS
			2389.5	-36.78	-10.00	PASS
			2390.5	-34.98	-10.00	PASS
			2391.5	-31.88	-10.00	PASS

			2392.5	-32.54	-10.00	PASS
			2393.5	-27.90	-10.00	PASS
			2394.5	-29.52	-10.00	PASS
			2395.5	-25.30	-10.00	PASS
			2396.5	-27.93	-10.00	PASS
			2397.5	-23.53	-10.00	PASS
			2398.5	-26.67	-10.00	PASS
			2399.5	-21.85	-10.00	PASS
			2484	-41.93	-10.00	PASS
			2485	-41.73	-10.00	PASS
			2486	-41.80	-10.00	PASS
			2487	-42.04	-10.00	PASS
			2488	-42.13	-10.00	PASS
			2489	-42.15	-10.00	PASS
			2490	-42.22	-10.00	PASS
			2491	-42.39	-10.00	PASS
			2492	-42.56	-10.00	PASS
			2493	-42.40	-10.00	PASS
			2494	-42.32	-10.00	PASS
			2495	-42.17	-10.00	PASS
			2496	-42.25	-10.00	PASS
			2497	-42.19	-10.00	PASS
			2498	-42.28	-10.00	PASS
			2499	-42.34	-10.00	PASS
			2499.486	-42.37	-10.00	PASS
			2500.486	-42.55	-20.00	PASS
			2501.486	-42.58	-20.00	PASS
			2502.486	-42.59	-20.00	PASS
			2503.486	-42.61	-20.00	PASS
			2504.486	-42.42	-20.00	PASS
			2505.486	-42.44	-20.00	PASS
			2506.486	-42.43	-20.00	PASS
			2507.486	-42.43	-20.00	PASS
			2508.486	-42.47	-20.00	PASS
			2509.486	-42.51	-20.00	PASS
			2510.486	-42.36	-20.00	PASS
			2511.486	-42.48	-20.00	PASS
			2512.486	-42.51	-20.00	PASS
			2513.486	-42.41	-20.00	PASS
			2514.486	-42.36	-20.00	PASS
			2515.486	-42.38	-20.00	PASS
			2515.972	-42.34	-20.00	PASS
	Ant2	2412	2367.522	-43.85	-20.00	PASS
			2368.011	-43.78	-20.00	PASS
			2369.011	-43.84	-20.00	PASS
			2370.011	-43.92	-20.00	PASS
			2371.011	-43.91	-20.00	PASS
			2372.011	-43.74	-20.00	PASS
			2373.011	-43.67	-20.00	PASS
			2374.011	-43.50	-20.00	PASS
			2375.011	-43.33	-20.00	PASS
			2376.011	-43.07	-20.00	PASS
			2377.011	-42.50	-20.00	PASS
			2378.011	-42.34	-20.00	PASS
			2379.011	-40.68	-20.00	PASS
			2380.011	-42.66	-20.00	PASS
			2381.011	-40.18	-20.00	PASS
			2382.011	-40.66	-20.00	PASS
			2383.011	-39.63	-20.00	PASS
			2384.011	-37.56	-10.00	PASS
			2384.5	-37.75	-10.00	PASS
			2385.5	-36.64	-10.00	PASS
			2386.5	-34.94	-10.00	PASS
			2387.5	-46.01	-10.00	PASS
			2388.5	-46.02	-10.00	PASS
			2389.5	-46.03	-10.00	PASS
			2390.5	-45.87	-10.00	PASS
			2391.5	-45.90	-10.00	PASS

			2392.5	-45.88	-10.00	PASS
			2393.5	-45.91	-10.00	PASS
			2394.5	-45.91	-10.00	PASS
			2395.5	-45.90	-10.00	PASS
			2396.5	-45.91	-10.00	PASS
			2397.5	-45.92	-10.00	PASS
			2398.5	-45.91	-10.00	PASS
			2399.5	-45.92	-10.00	PASS
			2484	-45.68	-10.00	PASS
			2485	-45.50	-10.00	PASS
			2486	-45.58	-10.00	PASS
			2487	-45.57	-10.00	PASS
			2488	-45.56	-10.00	PASS
			2489	-45.53	-10.00	PASS
			2490	-45.54	-10.00	PASS
			2491	-45.64	-10.00	PASS
			2492	-45.65	-10.00	PASS
			2493	-45.60	-10.00	PASS
			2494	-45.61	-10.00	PASS
			2495	-45.59	-10.00	PASS
			2496	-45.58	-10.00	PASS
			2497	-45.55	-10.00	PASS
			2498	-45.56	-10.00	PASS
			2499	-45.53	-10.00	PASS
			2499.489	-45.54	-10.00	PASS
			2500.489	-45.23	-20.00	PASS
			2501.489	-45.21	-20.00	PASS
			2502.489	-45.21	-20.00	PASS
			2503.489	-45.18	-20.00	PASS
			2504.489	-45.21	-20.00	PASS
			2505.489	-45.19	-20.00	PASS
			2506.489	-45.21	-20.00	PASS
			2507.489	-45.18	-20.00	PASS
			2508.489	-45.19	-20.00	PASS
			2509.489	-45.18	-20.00	PASS
			2510.489	-44.92	-20.00	PASS
			2511.489	-44.91	-20.00	PASS
			2512.489	-44.89	-20.00	PASS
			2513.489	-44.91	-20.00	PASS
			2514.489	-44.90	-20.00	PASS
			2515.489	-44.90	-20.00	PASS
			2515.978	-44.88	-20.00	PASS
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			2369.008	-44.25	-20.00	PASS
			2370.008	-44.40	-20.00	PASS
			2371.008	-44.45	-20.00	PASS
			2372.008	-44.39	-20.00	PASS
			2373.008	-44.40	-20.00	PASS
			2374.008	-44.37	-20.00	PASS
			2375.008	-44.35	-20.00	PASS
			2376.008	-44.33	-20.00	PASS
			2377.008	-44.33	-20.00	PASS
			2378.008	-44.31	-20.00	PASS
			2379.008	-44.27	-20.00	PASS
			2380.008	-44.96	-20.00	PASS
			2381.008	-44.96	-20.00	PASS
			2382.008	-44.85	-20.00	PASS
			2383.008	-44.92	-20.00	PASS
			2384.008	-44.77	-10.00	PASS
			2384.5	-44.70	-10.00	PASS
			2385.5	-44.65	-10.00	PASS
			2386.5	-44.63	-10.00	PASS
			2387.5	-44.59	-10.00	PASS
			2388.5	-44.59	-10.00	PASS
			2389.5	-44.56	-10.00	PASS
			2390.5	-44.41	-10.00	PASS
			2391.5	-44.38	-10.00	PASS

			2392.5	-44.41	-10.00	PASS
			2393.5	-44.40	-10.00	PASS
			2394.5	-44.37	-10.00	PASS
			2395.5	-44.38	-10.00	PASS
			2396.5	-44.35	-10.00	PASS
			2397.5	-44.27	-10.00	PASS
			2398.5	-44.29	-10.00	PASS
			2399.5	-44.33	-10.00	PASS
			2484	-22.48	-10.00	PASS
			2485	-24.23	-10.00	PASS
			2486	-25.97	-10.00	PASS
			2487	-27.27	-10.00	PASS
			2488	-29.11	-10.00	PASS
			2489	-29.69	-10.00	PASS
			2490	-32.33	-10.00	PASS
			2491	-31.63	-10.00	PASS
			2492	-34.50	-10.00	PASS
			2493	-34.48	-10.00	PASS
			2494	-36.63	-10.00	PASS
			2495	-37.71	-10.00	PASS
			2496	-39.23	-10.00	PASS
			2497	-39.55	-10.00	PASS
			2498	-40.18	-10.00	PASS
			2499	-40.50	-10.00	PASS
			2499.492	-40.62	-10.00	PASS
			2500.492	-40.70	-20.00	PASS
			2501.492	-40.72	-20.00	PASS
			2502.492	-40.91	-20.00	PASS
			2503.492	-41.44	-20.00	PASS
			2504.492	-41.44	-20.00	PASS
			2505.492	-41.60	-20.00	PASS
			2506.492	-41.64	-20.00	PASS
			2507.492	-41.78	-20.00	PASS
			2508.492	-41.89	-20.00	PASS
			2509.492	-41.99	-20.00	PASS
			2510.492	-42.02	-20.00	PASS
			2511.492	-42.17	-20.00	PASS
			2512.492	-42.24	-20.00	PASS
			2513.492	-42.20	-20.00	PASS
			2514.492	-41.95	-20.00	PASS
			2515.492	-41.98	-20.00	PASS
			2515.984	-41.99	-20.00	PASS
	Ant2	2472	2367.526	-44.06	-20.00	PASS
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			2369.013	-44.07	-20.00	PASS
			2370.013	-44.24	-20.00	PASS
			2371.013	-44.24	-20.00	PASS
			2372.013	-44.27	-20.00	PASS
			2373.013	-44.23	-20.00	PASS
			2374.013	-44.22	-20.00	PASS
			2375.013	-44.21	-20.00	PASS
			2376.013	-44.15	-20.00	PASS
			2377.013	-44.19	-20.00	PASS
			2378.013	-44.17	-20.00	PASS
			2379.013	-44.17	-20.00	PASS
			2380.013	-44.78	-20.00	PASS
			2381.013	-44.82	-20.00	PASS
			2382.013	-44.79	-20.00	PASS
			2383.013	-44.76	-20.00	PASS
			2384.013	-44.56	-10.00	PASS
			2384.5	-44.47	-10.00	PASS
			2385.5	-44.42	-10.00	PASS
			2386.5	-44.42	-10.00	PASS
			2387.5	-44.37	-10.00	PASS
			2388.5	-44.36	-10.00	PASS
			2389.5	-44.34	-10.00	PASS
			2390.5	-44.22	-10.00	PASS
			2391.5	-44.26	-10.00	PASS

			2392.5	-44.25	-10.00	PASS
			2393.5	-44.18	-10.00	PASS
			2394.5	-44.17	-10.00	PASS
			2395.5	-44.19	-10.00	PASS
			2396.5	-44.17	-10.00	PASS
			2397.5	-44.09	-10.00	PASS
			2398.5	-44.10	-10.00	PASS
			2399.5	-44.13	-10.00	PASS
			2484	-23.10	-10.00	PASS
			2485	-25.59	-10.00	PASS
			2486	-26.01	-10.00	PASS
			2487	-26.76	-10.00	PASS
			2488	-26.69	-10.00	PASS
			2489	-28.35	-10.00	PASS
			2490	-28.68	-10.00	PASS
			2491	-30.13	-10.00	PASS
			2492	-31.47	-10.00	PASS
			2493	-32.81	-10.00	PASS
			2494	-34.33	-10.00	PASS
			2495	-35.42	-10.00	PASS
			2496	-37.00	-10.00	PASS
			2497	-37.34	-10.00	PASS
			2498	-36.92	-10.00	PASS
			2499	-38.91	-10.00	PASS
			2499.487	-39.42	-10.00	PASS
			2500.487	-39.44	-20.00	PASS
			2501.487	-40.35	-20.00	PASS
			2502.487	-40.22	-20.00	PASS
			2503.487	-40.98	-20.00	PASS
			2504.487	-41.01	-20.00	PASS
			2505.487	-41.12	-20.00	PASS
			2506.487	-41.54	-20.00	PASS
			2507.487	-41.41	-20.00	PASS
			2508.487	-41.79	-20.00	PASS
			2509.487	-41.85	-20.00	PASS
			2510.487	-41.90	-20.00	PASS
			2511.487	-42.05	-20.00	PASS
			2512.487	-42.21	-20.00	PASS
			2513.487	-42.14	-20.00	PASS
			2514.487	-41.90	-20.00	PASS
			2515.487	-41.94	-20.00	PASS
			2515.974	-42.00	-20.00	PASS
11N20MIMO	Ant1	2412	2364.843	-44.17	-23.01	PASS
			2365.186	-44.17	-23.01	PASS
			2365.843	-44.18	-23.01	PASS
			2366.843	-44.17	-23.01	PASS
			2367.843	-44.13	-23.01	PASS
			2368.843	-44.14	-23.01	PASS
			2369.843	-44.12	-23.01	PASS
			2370.843	-44.25	-23.01	PASS
			2371.843	-44.16	-23.01	PASS
			2372.843	-44.20	-23.01	PASS
			2373.843	-44.17	-23.01	PASS
			2374.843	-44.17	-23.01	PASS
			2375.843	-44.14	-23.01	PASS
			2376.843	-44.09	-23.01	PASS
			2377.843	-44.07	-23.01	PASS
			2378.843	-45.40	-23.01	PASS
			2379.843	-45.41	-23.01	PASS
			2380.843	-46.08	-23.01	PASS
			2381.843	-46.10	-23.01	PASS
			2382.5	-46.08	-13.01	PASS
			2382.843	-46.07	-13.01	PASS
			2383.5	-46.08	-13.01	PASS
			2384.5	-46.06	-13.01	PASS
			2385.5	-46.08	-13.01	PASS
			2386.5	-46.07	-13.01	PASS
			2387.5	-46.08	-13.01	PASS

			2388.5	-46.07	-13.01	PASS
			2389.5	-46.08	-13.01	PASS
			2390.5	-45.93	-13.01	PASS
			2391.5	-45.91	-13.01	PASS
			2392.5	-45.92	-13.01	PASS
			2393.5	-45.92	-13.01	PASS
			2394.5	-45.95	-13.01	PASS
			2395.5	-45.93	-13.01	PASS
			2396.5	-45.93	-13.01	PASS
			2397.5	-45.92	-13.01	PASS
			2398.5	-45.92	-13.01	PASS
			2399.5	-45.93	-13.01	PASS
			2484	-45.55	-13.01	PASS
			2485	-45.54	-13.01	PASS
			2486	-45.64	-13.01	PASS
			2487	-45.63	-13.01	PASS
			2488	-45.63	-13.01	PASS
			2489	-45.61	-13.01	PASS
			2490	-45.60	-13.01	PASS
			2491	-45.64	-13.01	PASS
			2492	-45.63	-13.01	PASS
			2493	-45.61	-13.01	PASS
			2494	-45.62	-13.01	PASS
			2495	-45.62	-13.01	PASS
			2496	-45.59	-13.01	PASS
			2497	-45.60	-13.01	PASS
			2498	-45.56	-13.01	PASS
			2499	-45.56	-13.01	PASS
			2500	-45.55	-13.01	PASS
			2500.657	-45.26	-13.01	PASS
			2501	-45.26	-13.01	PASS
			2501.657	-45.26	-23.01	PASS
			2502.657	-45.27	-23.01	PASS
			2503.657	-45.24	-23.01	PASS
			2504.657	-45.26	-23.01	PASS
			2505.657	-45.25	-23.01	PASS
			2506.657	-45.24	-23.01	PASS
			2507.657	-45.24	-23.01	PASS
			2508.657	-45.22	-23.01	PASS
			2509.657	-45.21	-23.01	PASS
			2510.657	-44.92	-23.01	PASS
			2511.657	-44.90	-23.01	PASS
			2512.657	-44.91	-23.01	PASS
			2513.657	-44.89	-23.01	PASS
			2514.657	-44.90	-23.01	PASS
			2515.657	-44.88	-23.01	PASS
			2516.657	-44.87	-23.01	PASS
			2517.657	-44.91	-23.01	PASS
			2518.314	-44.90	-23.01	PASS
			2518.657	-44.89	-23.01	PASS
	Ant2	2412	2364.846	-44.11	-23.01	PASS
			2365.192	-44.10	-23.01	PASS
			2365.846	-44.11	-23.01	PASS
			2366.846	-44.12	-23.01	PASS
			2367.846	-44.09	-23.01	PASS
			2368.846	-44.09	-23.01	PASS
			2369.846	-44.09	-23.01	PASS
			2370.846	-44.22	-23.01	PASS
			2371.846	-44.22	-23.01	PASS
			2372.846	-44.21	-23.01	PASS
			2373.846	-44.18	-23.01	PASS
			2374.846	-44.17	-23.01	PASS
			2375.846	-44.14	-23.01	PASS
			2376.846	-44.10	-23.01	PASS
			2377.846	-44.07	-23.01	PASS
			2378.846	-44.01	-23.01	PASS
			2379.846	-43.93	-23.01	PASS
			2380.846	-44.48	-23.01	PASS

			2381.846	-44.38	-23.01	PASS
			2382.5	-44.33	-13.01	PASS
			2382.846	-44.30	-13.01	PASS
			2383.5	-44.24	-13.01	PASS
			2384.5	-44.05	-13.01	PASS
			2385.5	-43.88	-13.01	PASS
			2386.5	-43.57	-13.01	PASS
			2387.5	-42.68	-13.01	PASS
			2388.5	-40.94	-13.01	PASS
			2389.5	-40.24	-13.01	PASS
			2390.5	-39.33	-13.01	PASS
			2391.5	-37.58	-13.01	PASS
			2392.5	-37.09	-13.01	PASS
			2393.5	-35.54	-13.01	PASS
			2394.5	-34.57	-13.01	PASS
			2395.5	-34.15	-13.01	PASS
			2396.5	-33.48	-13.01	PASS
			2397.5	-32.61	-13.01	PASS
			2398.5	-30.80	-13.01	PASS
			2399.5	-27.57	-13.01	PASS
			2484	-42.93	-13.01	PASS
			2485	-42.85	-13.01	PASS
			2486	-42.86	-13.01	PASS
			2487	-42.85	-13.01	PASS
			2488	-42.89	-13.01	PASS
			2489	-42.90	-13.01	PASS
			2490	-42.86	-13.01	PASS
			2491	-43.00	-13.01	PASS
			2492	-43.17	-13.01	PASS
			2493	-42.96	-13.01	PASS
			2494	-42.93	-13.01	PASS
			2495	-42.92	-13.01	PASS
			2496	-42.88	-13.01	PASS
			2497	-42.92	-13.01	PASS
			2498	-42.95	-13.01	PASS
			2499	-42.99	-13.01	PASS
			2500	-43.05	-13.01	PASS
			2500.654	-42.84	-13.01	PASS
			2501	-42.95	-13.01	PASS
			2501.654	-43.00	-23.01	PASS
			2502.654	-43.06	-23.01	PASS
			2503.654	-43.02	-23.01	PASS
			2504.654	-43.04	-23.01	PASS
			2505.654	-43.02	-23.01	PASS
			2506.654	-43.02	-23.01	PASS
			2507.654	-43.04	-23.01	PASS
			2508.654	-43.03	-23.01	PASS
			2509.654	-43.08	-23.01	PASS
			2510.654	-42.84	-23.01	PASS
			2511.654	-42.91	-23.01	PASS
			2512.654	-42.90	-23.01	PASS
			2513.654	-42.89	-23.01	PASS
			2514.654	-42.91	-23.01	PASS
			2515.654	-42.92	-23.01	PASS
			2516.654	-42.93	-23.01	PASS
			2517.654	-42.91	-23.01	PASS
			2518.308	-42.94	-23.01	PASS
			2518.654	-42.95	-23.01	PASS
	Ant1	2472	2364.843	-44.25	-23.01	PASS
			2365.186	-44.24	-23.01	PASS
			2365.843	-44.24	-23.01	PASS
			2366.843	-44.23	-23.01	PASS
			2367.843	-44.23	-23.01	PASS
			2368.843	-44.23	-23.01	PASS
			2369.843	-44.20	-23.01	PASS
			2370.843	-44.32	-23.01	PASS
			2371.843	-44.31	-23.01	PASS
			2372.843	-44.31	-23.01	PASS

			2373.843	-44.27	-23.01	PASS
			2374.843	-44.28	-23.01	PASS
			2375.843	-44.26	-23.01	PASS
			2376.843	-44.23	-23.01	PASS
			2377.843	-44.22	-23.01	PASS
			2378.843	-44.19	-23.01	PASS
			2379.843	-44.18	-23.01	PASS
			2380.843	-44.84	-23.01	PASS
			2381.843	-44.78	-23.01	PASS
			2382.5	-44.78	-13.01	PASS
			2382.843	-44.75	-13.01	PASS
			2383.5	-44.67	-13.01	PASS
			2384.5	-44.62	-13.01	PASS
			2385.5	-44.57	-13.01	PASS
			2386.5	-44.53	-13.01	PASS
			2387.5	-44.51	-13.01	PASS
			2388.5	-44.49	-13.01	PASS
			2389.5	-44.46	-13.01	PASS
			2390.5	-44.26	-13.01	PASS
			2391.5	-44.22	-13.01	PASS
			2392.5	-44.25	-13.01	PASS
			2393.5	-44.25	-13.01	PASS
			2394.5	-44.23	-13.01	PASS
			2395.5	-44.23	-13.01	PASS
			2396.5	-44.22	-13.01	PASS
			2397.5	-44.22	-13.01	PASS
			2398.5	-44.22	-13.01	PASS
			2399.5	-44.24	-13.01	PASS
			2484	-24.48	-13.01	PASS
			2485	-29.42	-13.01	PASS
			2486	-33.56	-13.01	PASS
			2487	-36.65	-13.01	PASS
			2488	-37.60	-13.01	PASS
			2489	-38.65	-13.01	PASS
			2490	-39.17	-13.01	PASS
			2491	-39.47	-13.01	PASS
			2492	-40.52	-13.01	PASS
			2493	-41.19	-13.01	PASS
			2494	-41.62	-13.01	PASS
			2495	-41.95	-13.01	PASS
			2496	-42.23	-13.01	PASS
			2497	-42.35	-13.01	PASS
			2498	-42.49	-13.01	PASS
			2499	-42.54	-13.01	PASS
			2500	-42.56	-13.01	PASS
			2500.657	-42.33	-13.01	PASS
			2501	-42.33	-13.01	PASS
			2501.657	-42.07	-23.01	PASS
			2502.657	-42.37	-23.01	PASS
			2503.657	-42.27	-23.01	PASS
			2504.657	-42.24	-23.01	PASS
			2505.657	-42.24	-23.01	PASS
			2506.657	-42.20	-23.01	PASS
			2507.657	-45.22	-23.01	PASS
			2508.657	-45.21	-23.01	PASS
			2509.657	-45.21	-23.01	PASS
			2510.657	-44.91	-23.01	PASS
			2511.657	-44.91	-23.01	PASS
			2512.657	-44.89	-23.01	PASS
			2513.657	-44.90	-23.01	PASS
			2514.657	-44.91	-23.01	PASS
			2515.657	-44.86	-23.01	PASS
			2516.657	-44.87	-23.01	PASS
			2517.657	-44.86	-23.01	PASS
			2518.314	-44.89	-23.01	PASS
			2518.657	-44.88	-23.01	PASS
	Ant2	2472	2364.848	-44.11	-23.01	PASS
			2365.196	-44.14	-23.01	PASS

			2365.848	-44.12	-23.01	PASS
			2366.848	-44.10	-23.01	PASS
			2367.848	-44.13	-23.01	PASS
			2368.848	-44.13	-23.01	PASS
			2369.848	-44.11	-23.01	PASS
			2370.848	-44.30	-23.01	PASS
			2371.848	-44.30	-23.01	PASS
			2372.848	-44.29	-23.01	PASS
			2373.848	-44.28	-23.01	PASS
			2374.848	-44.24	-23.01	PASS
			2375.848	-44.27	-23.01	PASS
			2376.848	-44.23	-23.01	PASS
			2377.848	-44.21	-23.01	PASS
			2378.848	-44.21	-23.01	PASS
			2379.848	-44.17	-23.01	PASS
			2380.848	-44.81	-23.01	PASS
			2381.848	-44.79	-23.01	PASS
			2382.5	-44.77	-13.01	PASS
			2382.848	-44.73	-13.01	PASS
			2383.5	-44.64	-13.01	PASS
			2384.5	-44.57	-13.01	PASS
			2385.5	-44.54	-13.01	PASS
			2386.5	-44.53	-13.01	PASS
			2387.5	-44.48	-13.01	PASS
			2388.5	-44.46	-13.01	PASS
			2389.5	-44.44	-13.01	PASS
			2390.5	-44.31	-13.01	PASS
			2391.5	-44.34	-13.01	PASS
			2392.5	-44.32	-13.01	PASS
			2393.5	-44.30	-13.01	PASS
			2394.5	-44.31	-13.01	PASS
			2395.5	-44.31	-13.01	PASS
			2396.5	-44.30	-13.01	PASS
			2397.5	-44.31	-13.01	PASS
			2398.5	-44.34	-13.01	PASS
			2399.5	-44.34	-13.01	PASS
			2484	-25.43	-13.01	PASS
			2485	-30.09	-13.01	PASS
			2486	-34.12	-13.01	PASS
			2487	-35.72	-13.01	PASS
			2488	-37.56	-13.01	PASS
			2489	-38.17	-13.01	PASS
			2490	-39.00	-13.01	PASS
			2491	-39.53	-13.01	PASS
			2492	-40.20	-13.01	PASS
			2493	-41.13	-13.01	PASS
			2494	-41.35	-13.01	PASS
			2495	-41.80	-13.01	PASS
			2496	-42.25	-13.01	PASS
			2497	-42.50	-13.01	PASS
			2498	-42.61	-13.01	PASS
			2499	-42.71	-13.01	PASS
			2500	-42.77	-13.01	PASS
			2500.652	-42.54	-13.01	PASS
			2501	-42.57	-13.01	PASS
			2501.652	-42.55	-23.01	PASS
			2502.652	-42.62	-23.01	PASS
			2503.652	-42.45	-23.01	PASS
			2504.652	-42.47	-23.01	PASS
			2505.652	-42.44	-23.01	PASS
			2506.652	-42.45	-23.01	PASS
			2507.652	-42.50	-23.01	PASS
			2508.652	-42.54	-23.01	PASS
			2509.652	-42.58	-23.01	PASS
			2510.652	-42.37	-23.01	PASS
			2511.652	-42.55	-23.01	PASS
			2512.652	-42.51	-23.01	PASS
			2513.652	-42.45	-23.01	PASS

			2514.652	-42.51	-23.01	PASS
			2515.652	-42.55	-23.01	PASS
			2516.652	-42.56	-23.01	PASS
			2517.652	-42.61	-23.01	PASS
			2518.304	-42.63	-23.01	PASS
			2518.652	-42.69	-23.01	PASS
11N40MIMO	Ant1	2422	2328.533	-44.80	-23.01	PASS
			2328.566	-44.78	-23.01	PASS
			2329.533	-44.78	-23.01	PASS
			2330.533	-45.11	-23.01	PASS
			2331.533	-45.08	-23.01	PASS
			2332.533	-45.06	-23.01	PASS
			2333.533	-45.06	-23.01	PASS
			2334.533	-45.05	-23.01	PASS
			2335.533	-45.01	-23.01	PASS
			2336.533	-44.98	-23.01	PASS
			2337.533	-44.97	-23.01	PASS
			2338.533	-44.96	-23.01	PASS
			2339.533	-44.93	-23.01	PASS
			2340.533	-44.94	-23.01	PASS
			2341.533	-44.88	-23.01	PASS
			2342.533	-44.89	-23.01	PASS
			2343.533	-44.88	-23.01	PASS
			2344.533	-44.88	-23.01	PASS
			2345.533	-44.87	-23.01	PASS
			2346.533	-44.84	-23.01	PASS
			2347.533	-44.86	-23.01	PASS
			2348.533	-44.86	-23.01	PASS
			2349.533	-44.84	-23.01	PASS
			2350.533	-44.53	-23.01	PASS
			2351.533	-44.49	-23.01	PASS
			2352.533	-44.50	-23.01	PASS
			2353.533	-44.51	-23.01	PASS
			2354.533	-44.48	-23.01	PASS
			2355.533	-44.44	-23.01	PASS
			2356.533	-44.42	-23.01	PASS
			2357.533	-44.35	-23.01	PASS
			2358.533	-44.24	-23.01	PASS
			2359.533	-44.16	-23.01	PASS
			2360.533	-44.13	-23.01	PASS
			2361.533	-44.24	-23.01	PASS
			2362.533	-44.24	-23.01	PASS
			2363.533	-44.21	-23.01	PASS
			2364.5	-44.17	-13.01	PASS
			2364.533	-44.18	-13.01	PASS
			2365.5	-44.18	-13.01	PASS
			2366.5	-44.16	-13.01	PASS
			2367.5	-44.15	-13.01	PASS
			2368.5	-44.17	-13.01	PASS
			2369.5	-44.12	-13.01	PASS
			2370.5	-44.25	-13.01	PASS
			2371.5	-44.17	-13.01	PASS
			2372.5	-44.13	-13.01	PASS
			2373.5	-44.13	-13.01	PASS
			2374.5	-44.08	-13.01	PASS
			2375.5	-44.04	-13.01	PASS
			2376.5	-43.97	-13.01	PASS
			2377.5	-43.81	-13.01	PASS
			2378.5	-43.67	-13.01	PASS
			2379.5	-43.56	-13.01	PASS
			2380.5	-44.21	-13.01	PASS
			2381.5	-44.00	-13.01	PASS
			2382.5	-43.80	-13.01	PASS
			2383.5	-43.71	-13.01	PASS
			2384.5	-43.18	-13.01	PASS
			2385.5	-43.05	-13.01	PASS
			2386.5	-42.87	-13.01	PASS
			2387.5	-42.67	-13.01	PASS

			2388.5	-42.39	-13.01	PASS
			2389.5	-42.33	-13.01	PASS
			2390.5	-41.96	-13.01	PASS
			2391.5	-41.33	-13.01	PASS
			2392.5	-41.08	-13.01	PASS
			2393.5	-41.03	-13.01	PASS
			2394.5	-40.36	-13.01	PASS
			2395.5	-40.63	-13.01	PASS
			2396.5	-40.42	-13.01	PASS
			2397.5	-39.39	-13.01	PASS
			2398.5	-39.74	-13.01	PASS
			2399.5	-39.27	-13.01	PASS
			2484	-41.84	-13.01	PASS
			2485	-41.70	-13.01	PASS
			2486	-41.97	-13.01	PASS
			2487	-42.10	-13.01	PASS
			2488	-42.26	-13.01	PASS
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			2491	-42.61	-13.01	PASS
			2492	-42.43	-13.01	PASS
			2493	-42.72	-13.01	PASS
			2494	-42.75	-13.01	PASS
			2495	-42.76	-13.01	PASS
			2496	-42.77	-13.01	PASS
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			2508	-42.64	-13.01	PASS
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			2516	-42.77	-13.01	PASS
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			2518	-42.82	-13.01	PASS
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			2519	-42.86	-13.01	PASS
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			2523.967	-43.17	-23.01	PASS
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			2526.967	-43.16	-23.01	PASS
			2527.967	-43.17	-23.01	PASS
			2528.967	-43.15	-23.01	PASS
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			2530.967	-43.42	-23.01	PASS
			2531.967	-43.28	-23.01	PASS
			2532.967	-43.43	-23.01	PASS
			2533.967	-43.37	-23.01	PASS
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			2535.967	-43.42	-23.01	PASS
			2536.967	-43.41	-23.01	PASS
			2537.967	-43.34	-23.01	PASS

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			2540.967	-43.28	-23.01	PASS
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			2544.967	-43.26	-23.01	PASS
			2545.967	-43.29	-23.01	PASS
			2546.967	-43.20	-23.01	PASS
			2547.967	-43.32	-23.01	PASS
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			2549.967	-43.33	-23.01	PASS
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			2551.967	-43.07	-23.01	PASS
			2552.967	-43.22	-23.01	PASS
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			2554.967	-43.29	-23.01	PASS
	Ant2	2422	2328.54	-44.47	-23.01	PASS
			2328.58	-44.46	-23.01	PASS
			2329.54	-44.48	-23.01	PASS
			2330.54	-44.88	-23.01	PASS
			2331.54	-44.89	-23.01	PASS
			2332.54	-44.86	-23.01	PASS
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			2368.5	-43.97	-13.01	PASS
			2369.5	-43.94	-13.01	PASS
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			2533.96	-43.27	-23.01	PASS
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			2537.96	-43.16	-23.01	PASS
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			2539.96	-43.12	-23.01	PASS
			2540.96	-43.06	-23.01	PASS
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			2546.96	-42.92	-23.01	PASS
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			2549.96	-42.93	-23.01	PASS
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			2332.583	-45.09	-23.01	PASS
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			2367.5	-44.19	-13.01	PASS
			2368.5	-44.21	-13.01	PASS
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			2374.5	-44.26	-13.01	PASS
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			2376.5	-44.23	-13.01	PASS
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			2386.5	-46.05	-13.01	PASS
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			2519	-44.85	-13.01	PASS
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			2332.589	-44.85	-23.01	PASS
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			2346.589	-44.75	-23.01	PASS
			2347.589	-44.75	-23.01	PASS
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			2357.589	-45.60	-23.01	PASS
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			2363.589	-45.24	-23.01	PASS
			2364.5	-45.24	-13.01	PASS
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			2366.5	-45.21	-13.01	PASS
			2367.5	-45.22	-13.01	PASS
			2368.5	-45.19	-13.01	PASS
			2369.5	-45.20	-13.01	PASS
			2370.5	-45.35	-13.01	PASS
			2371.5	-45.35	-13.01	PASS
			2372.5	-45.33	-13.01	PASS
			2373.5	-45.35	-13.01	PASS
			2374.5	-45.34	-13.01	PASS
			2375.5	-45.34	-13.01	PASS
			2376.5	-45.32	-13.01	PASS
			2377.5	-45.32	-13.01	PASS
			2378.5	-45.33	-13.01	PASS
			2379.5	-45.34	-13.01	PASS
			2380.5	-45.96	-13.01	PASS
			2381.5	-45.96	-13.01	PASS
			2382.5	-45.99	-13.01	PASS
			2383.5	-46.00	-13.01	PASS
			2384.5	-45.96	-13.01	PASS
			2385.5	-45.96	-13.01	PASS
			2386.5	-45.97	-13.01	PASS
			2387.5	-45.96	-13.01	PASS
			2388.5	-45.98	-13.01	PASS
			2389.5	-45.97	-13.01	PASS
			2390.5	-45.85	-13.01	PASS
			2391.5	-45.86	-13.01	PASS
			2392.5	-45.86	-13.01	PASS
			2393.5	-45.84	-13.01	PASS
			2394.5	-45.84	-13.01	PASS
			2395.5	-45.88	-13.01	PASS
			2396.5	-45.84	-13.01	PASS
			2397.5	-45.86	-13.01	PASS
			2398.5	-45.87	-13.01	PASS
			2399.5	-45.85	-13.01	PASS
			2484	-45.48	-13.01	PASS
			2485	-45.48	-13.01	PASS
			2486	-45.55	-13.01	PASS
			2487	-45.53	-13.01	PASS
			2488	-45.54	-13.01	PASS
			2489	-45.51	-13.01	PASS
			2490	-45.51	-13.01	PASS
			2491	-45.61	-13.01	PASS
			2492	-45.58	-13.01	PASS
			2493	-45.57	-13.01	PASS
			2494	-45.58	-13.01	PASS
			2495	-45.58	-13.01	PASS
			2496	-45.53	-13.01	PASS
			2497	-45.56	-13.01	PASS
			2498	-45.52	-13.01	PASS
			2499	-45.53	-13.01	PASS
			2500	-45.51	-13.01	PASS
			2501	-45.20	-13.01	PASS
			2502	-45.20	-13.01	PASS
			2503	-45.19	-13.01	PASS

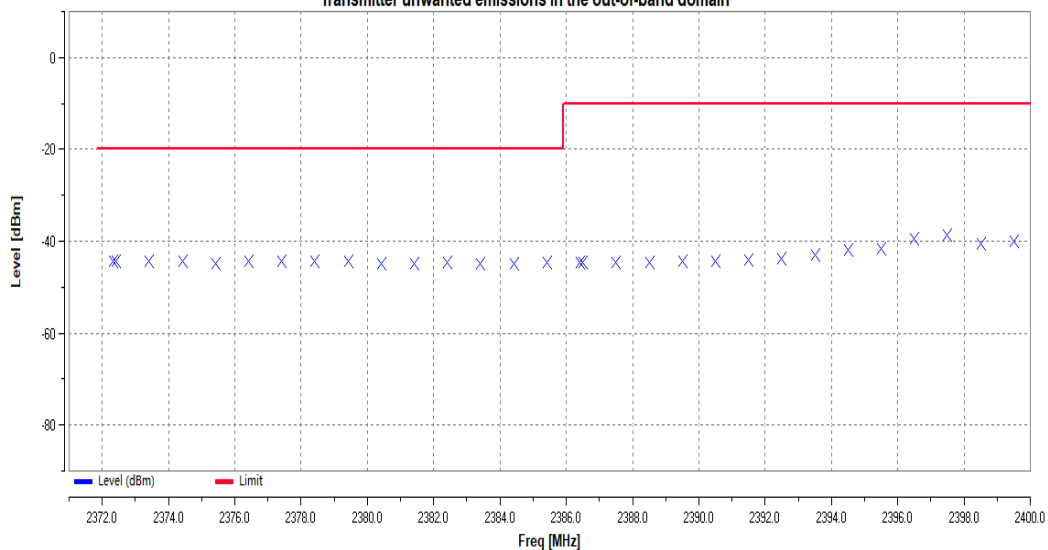
			2504	-45.16	-13.01	PASS
			2505	-45.17	-13.01	PASS
			2506	-45.18	-13.01	PASS
			2507	-45.16	-13.01	PASS
			2508	-45.16	-13.01	PASS
			2509	-45.16	-13.01	PASS
			2510	-45.17	-13.01	PASS
			2511	-44.89	-13.01	PASS
			2512	-44.90	-13.01	PASS
			2513	-44.87	-13.01	PASS
			2514	-44.88	-13.01	PASS
			2515	-44.87	-13.01	PASS
			2516	-44.86	-13.01	PASS
			2517	-44.85	-13.01	PASS
			2518	-44.85	-13.01	PASS
			2518.911	-44.87	-13.01	PASS
			2519	-44.88	-13.01	PASS
			2519.911	-44.83	-23.01	PASS
			2520.911	-45.11	-23.01	PASS
			2521.911	-45.08	-23.01	PASS
			2522.911	-45.10	-23.01	PASS
			2523.911	-45.09	-23.01	PASS
			2524.911	-45.10	-23.01	PASS
			2525.911	-45.10	-23.01	PASS
			2526.911	-45.10	-23.01	PASS
			2527.911	-45.10	-23.01	PASS
			2528.911	-45.11	-23.01	PASS
			2529.911	-45.11	-23.01	PASS
			2530.911	-45.37	-23.01	PASS
			2531.911	-45.41	-23.01	PASS
			2532.911	-45.39	-23.01	PASS
			2533.911	-45.38	-23.01	PASS
			2534.911	-45.39	-23.01	PASS
			2535.911	-45.42	-23.01	PASS
			2536.911	-45.41	-23.01	PASS
			2537.911	-45.43	-23.01	PASS
			2538.911	-45.41	-23.01	PASS
			2539.911	-45.41	-23.01	PASS
			2540.911	-45.39	-23.01	PASS
			2541.911	-45.38	-23.01	PASS
			2542.911	-45.37	-23.01	PASS
			2543.911	-45.40	-23.01	PASS
			2544.911	-45.40	-23.01	PASS
			2545.911	-45.41	-23.01	PASS
			2546.911	-45.43	-23.01	PASS
			2547.911	-45.44	-23.01	PASS
			2548.911	-45.43	-23.01	PASS
			2549.911	-45.44	-23.01	PASS
			2550.911	-45.30	-23.01	PASS
			2551.911	-45.28	-23.01	PASS
			2552.911	-45.28	-23.01	PASS
			2553.911	-45.29	-23.01	PASS
			2554.822	-45.29	-23.01	PASS
			2554.911	-45.30	-23.01	PASS

Note: The antenna gain was added into the result.

Test Graphs

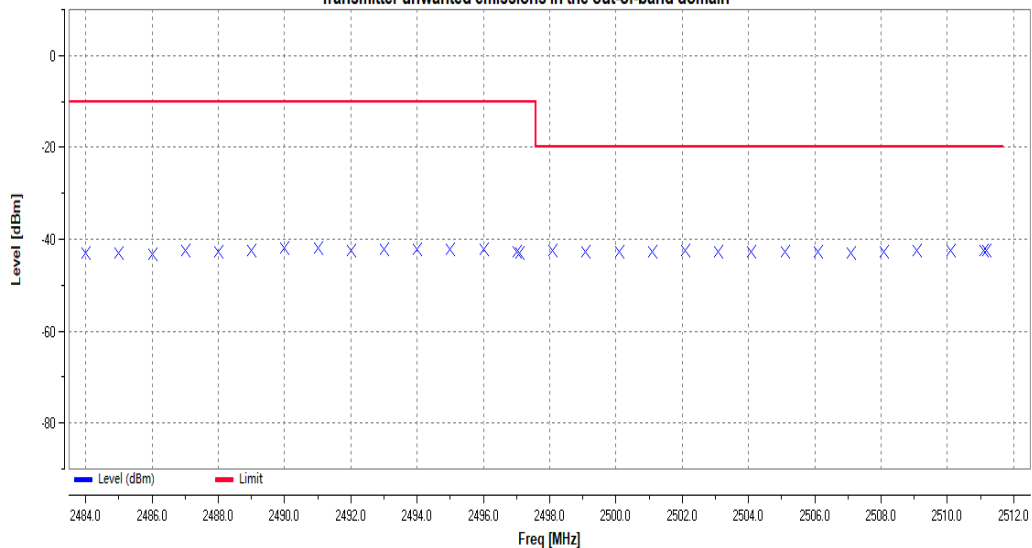
11B_Ant1_2412_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



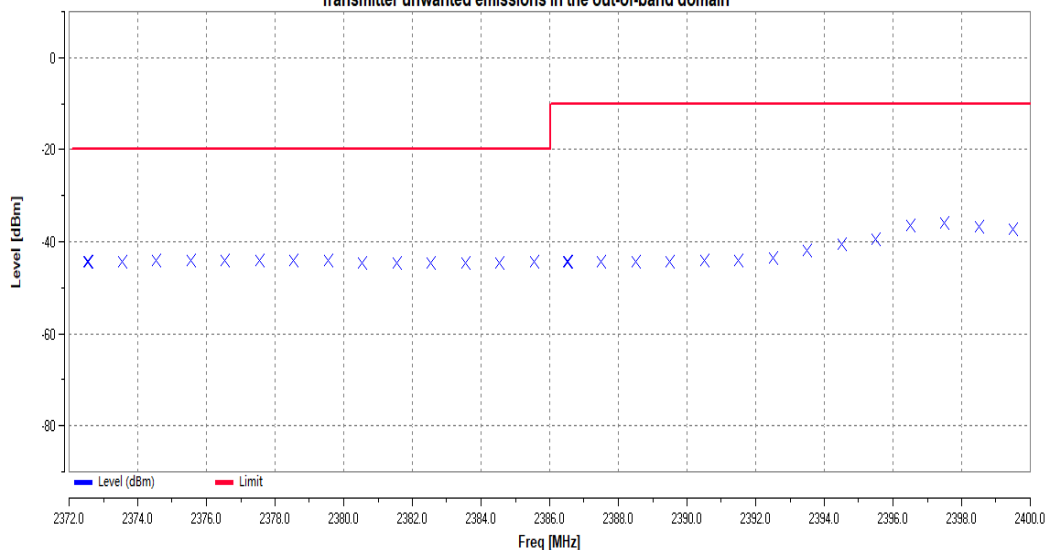
11B_Ant1_2412_2483.5MHz to 2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain



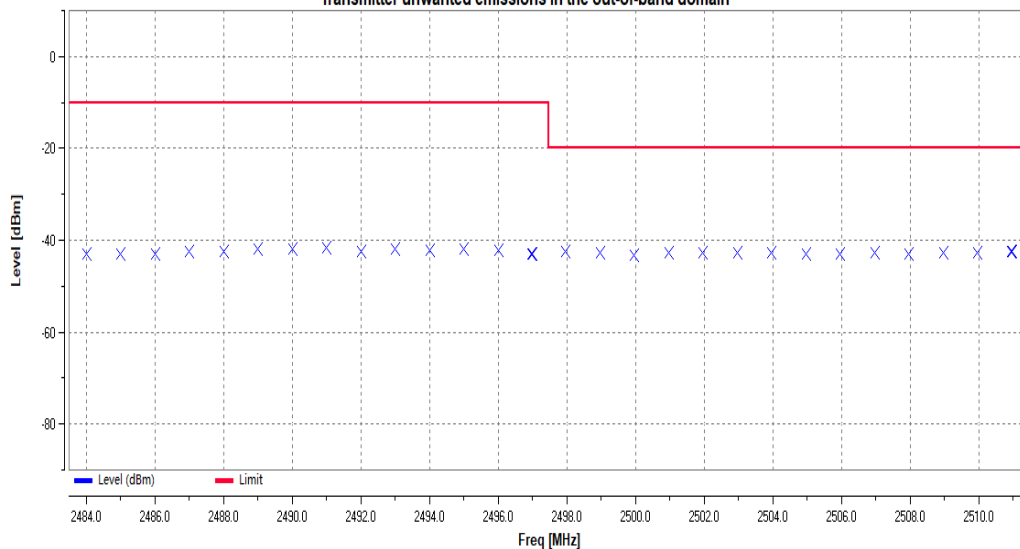
11B_Ant2_2412_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



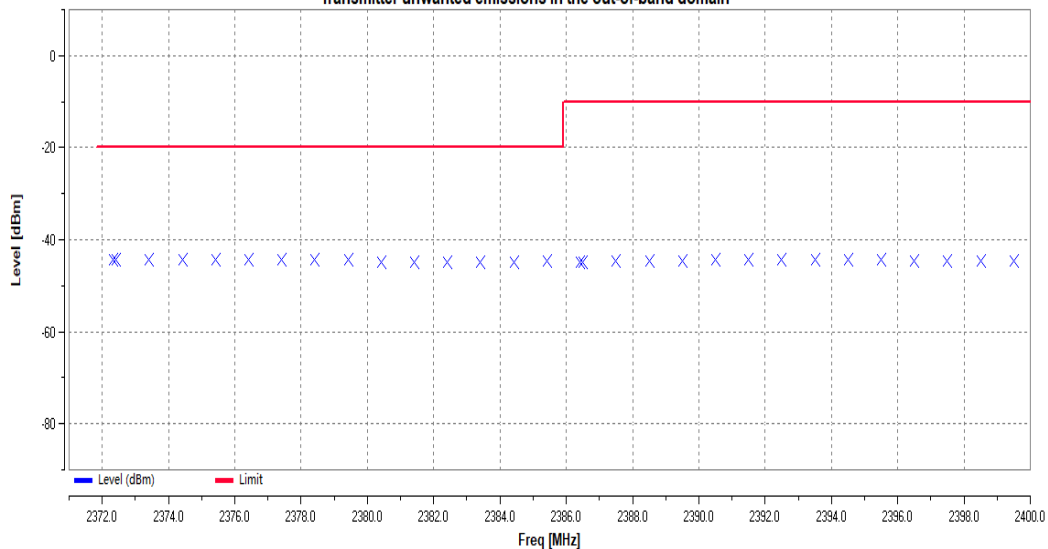
11B_Ant2_2412_2483.5MHz to 2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain



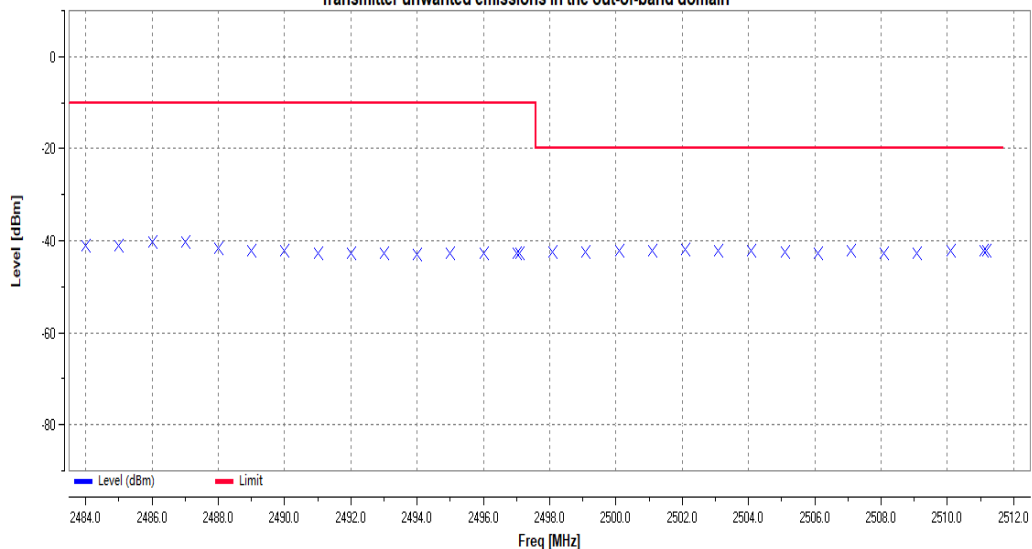
11B_Ant1_2472_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



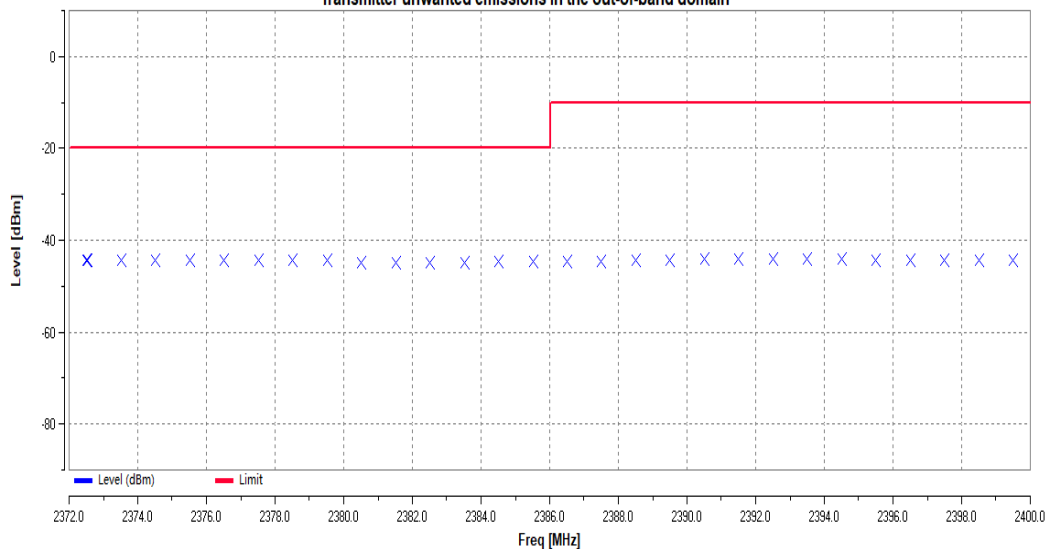
11B_Ant1_2472_2483.5MHz to 2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain



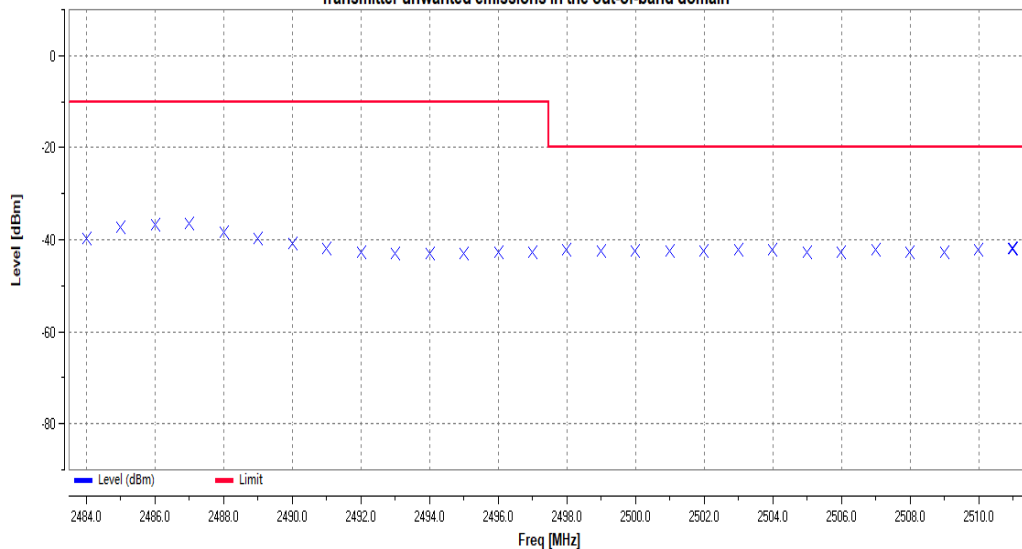
11B_Ant2_2472_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



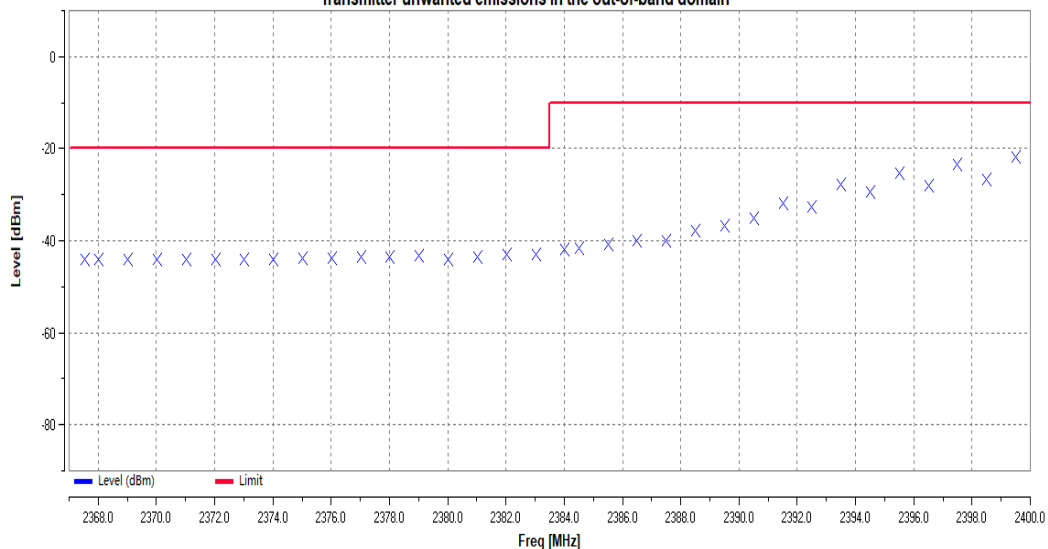
11B_Ant2_2472_2483.5MHz to 2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain

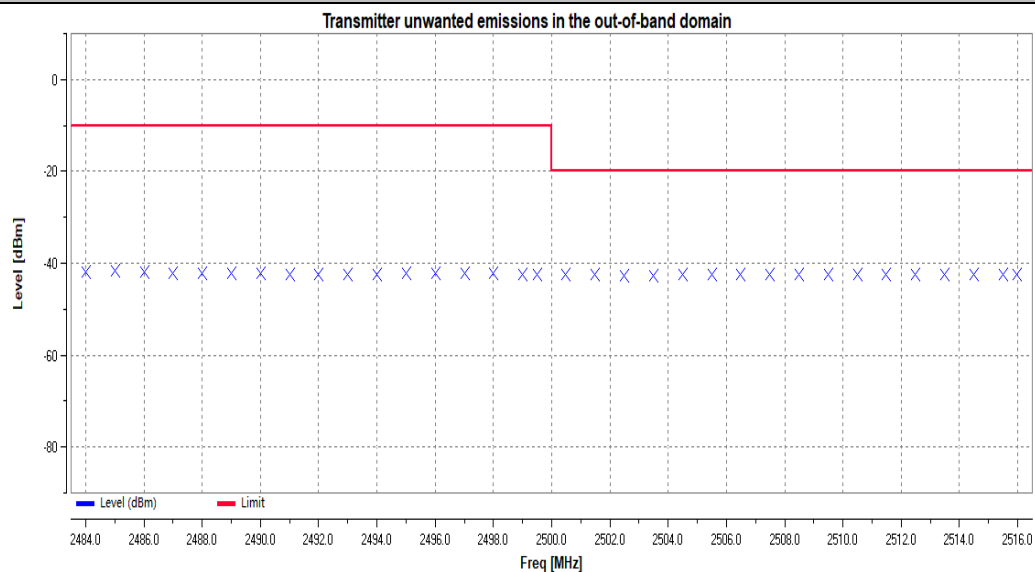


11G_Ant1_2412_2400MHz-2BW to 2400MHz

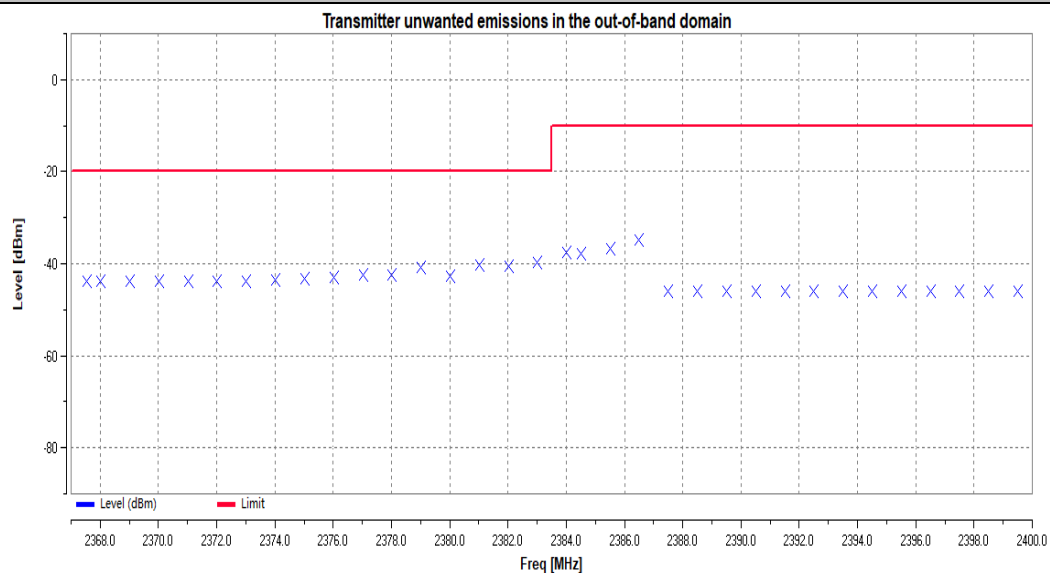
Transmitter unwanted emissions in the out-of-band domain



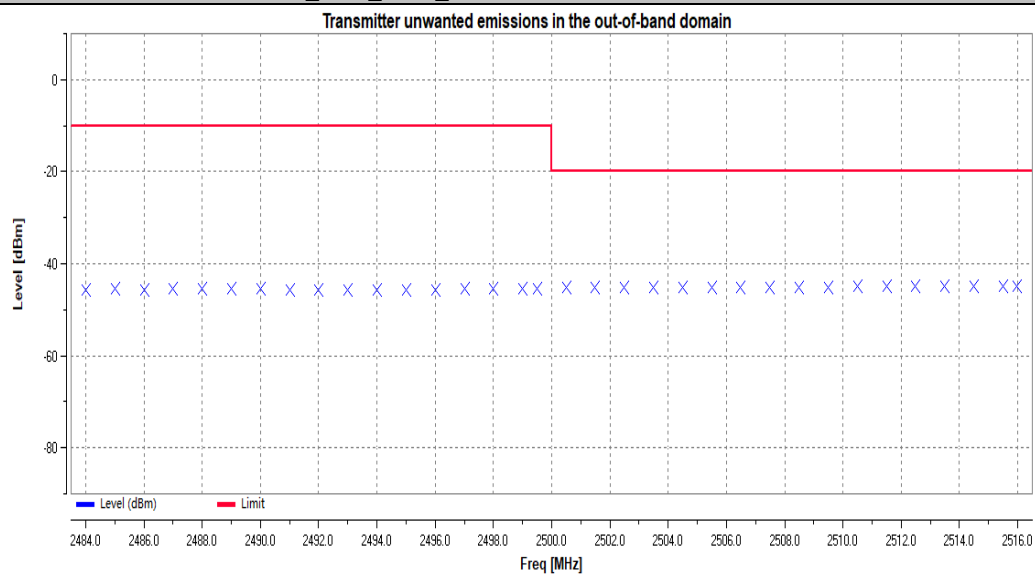
11G_Ant1_2412_2483.5MHz to 2483.5MHz+2BW



11G_Ant2_2412_2400MHz-2BW to 2400MHz

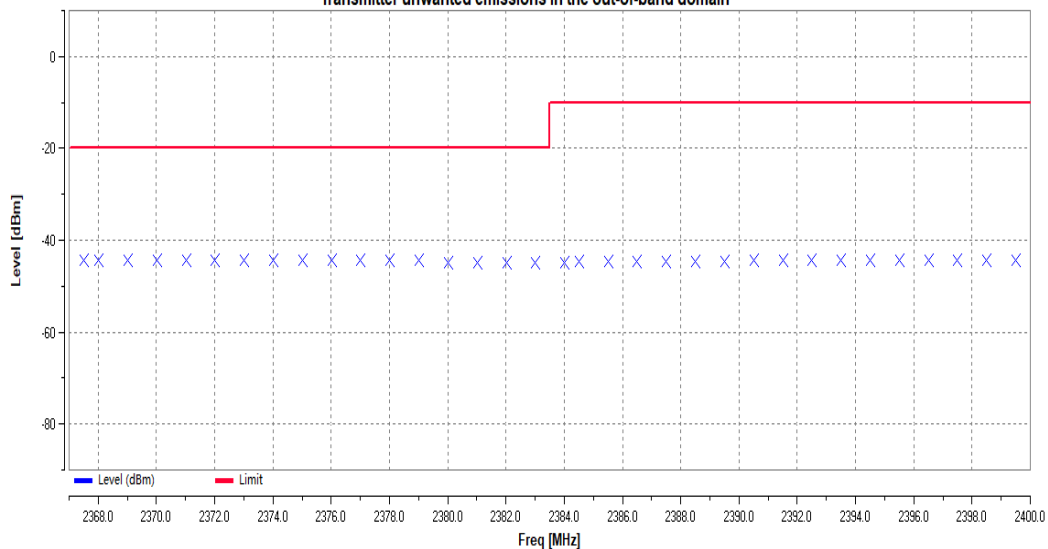


11G_Ant2_2412_2483.5MHz to 2483.5MHz+2BW



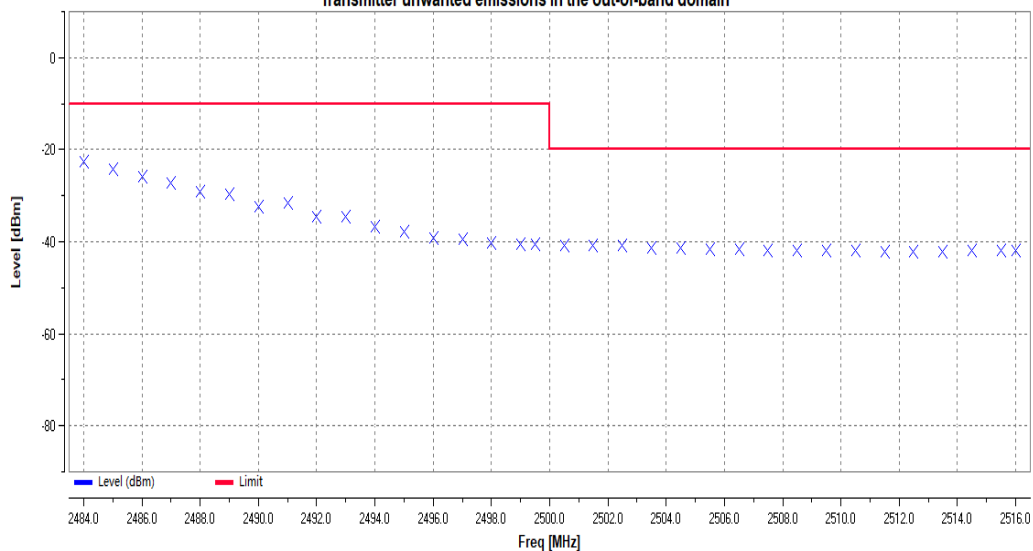
11G_Ant1_2472_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



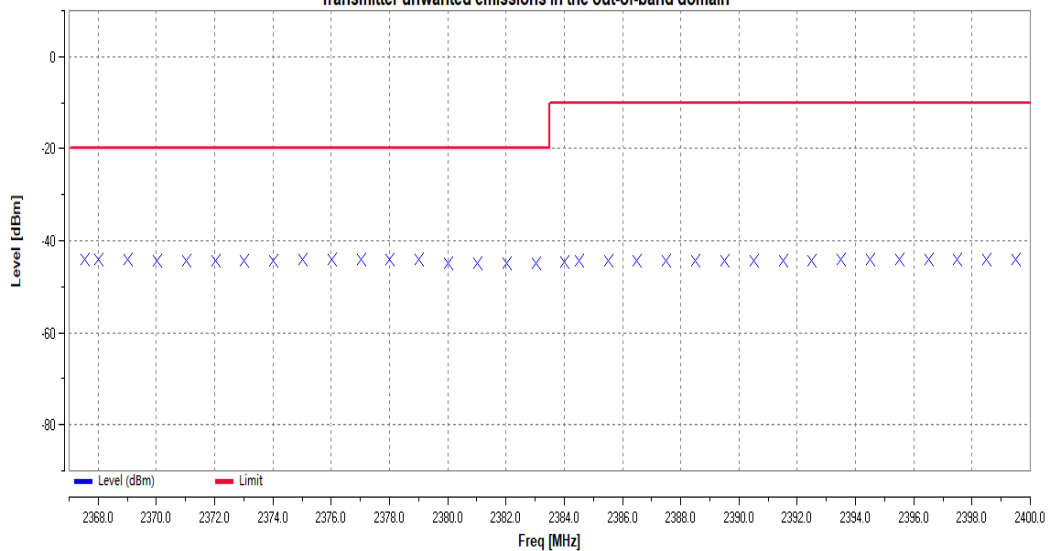
11G_Ant1_2472_2483.5MHz to 2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain

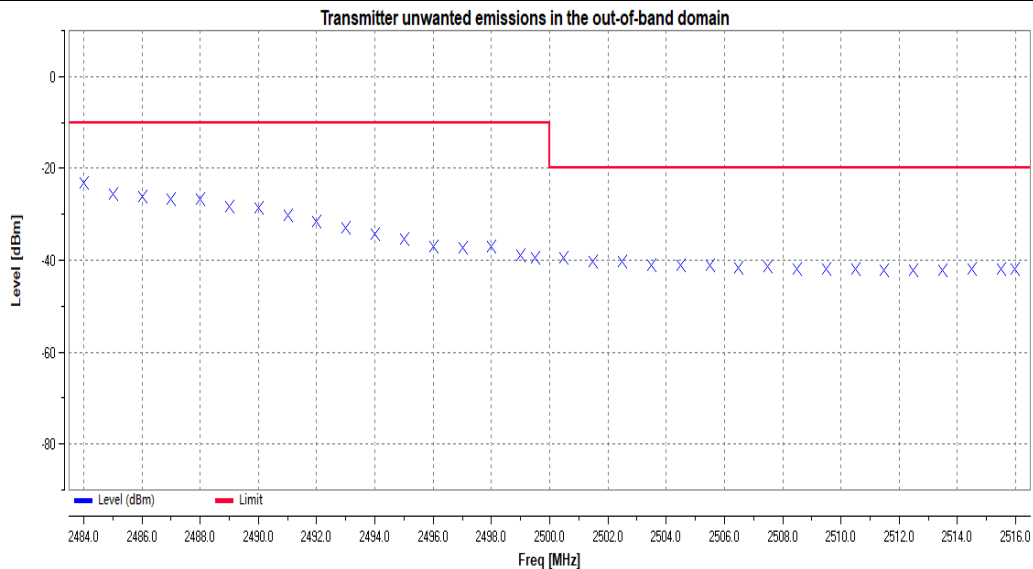


11G_Ant2_2472_2400MHz-2BW to 2400MHz

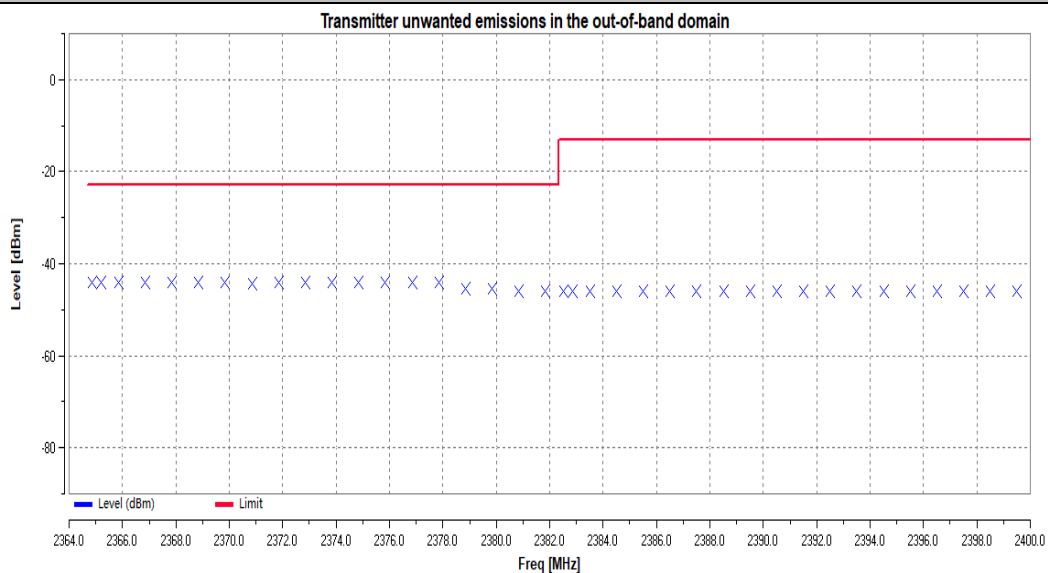
Transmitter unwanted emissions in the out-of-band domain



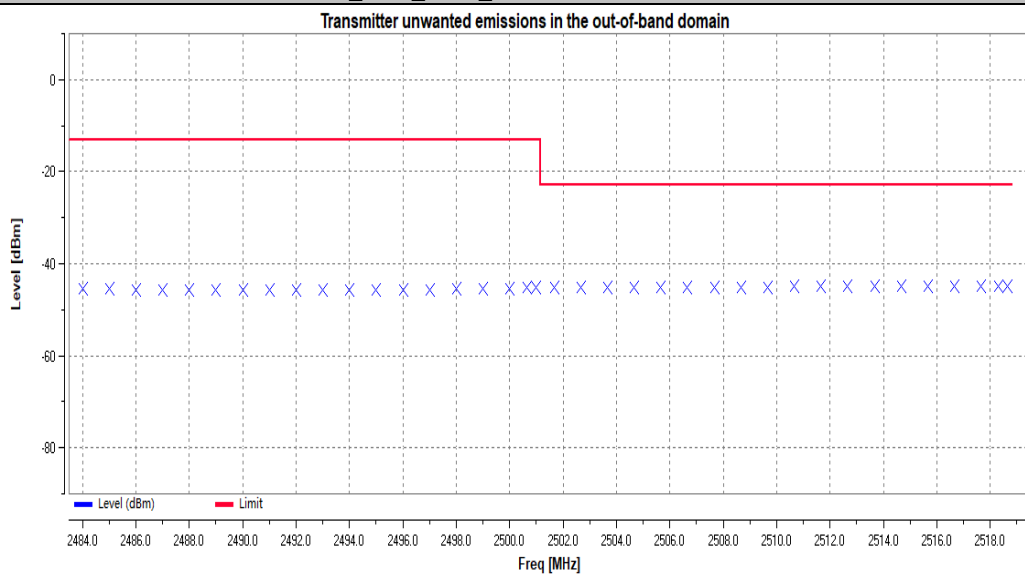
11G_Ant2_2472_2483.5MHz to 2483.5MHz+2BW



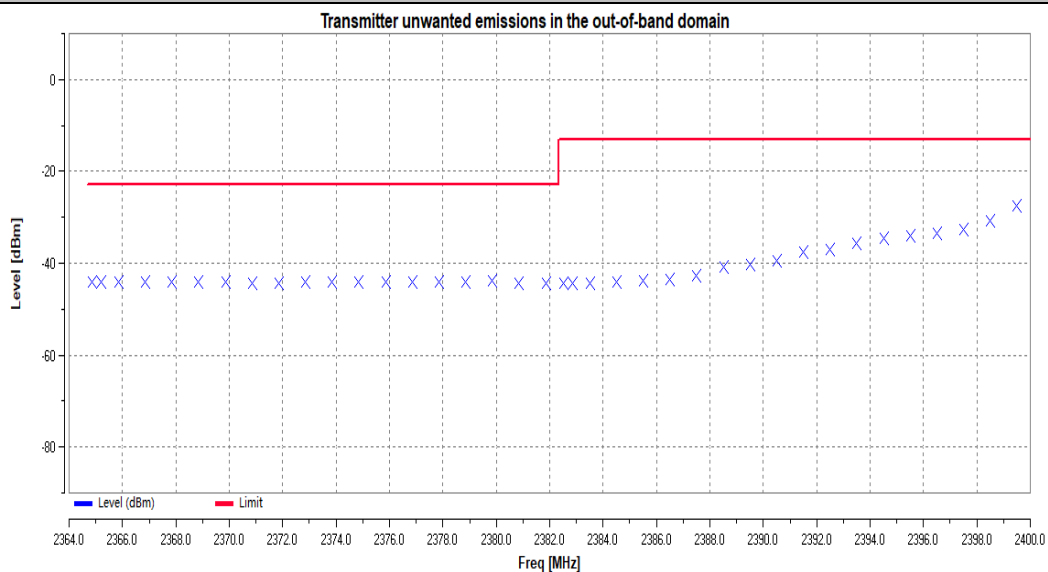
11N20MIMO_Ant1_2412_2400MHz-2BW to 2400MHz



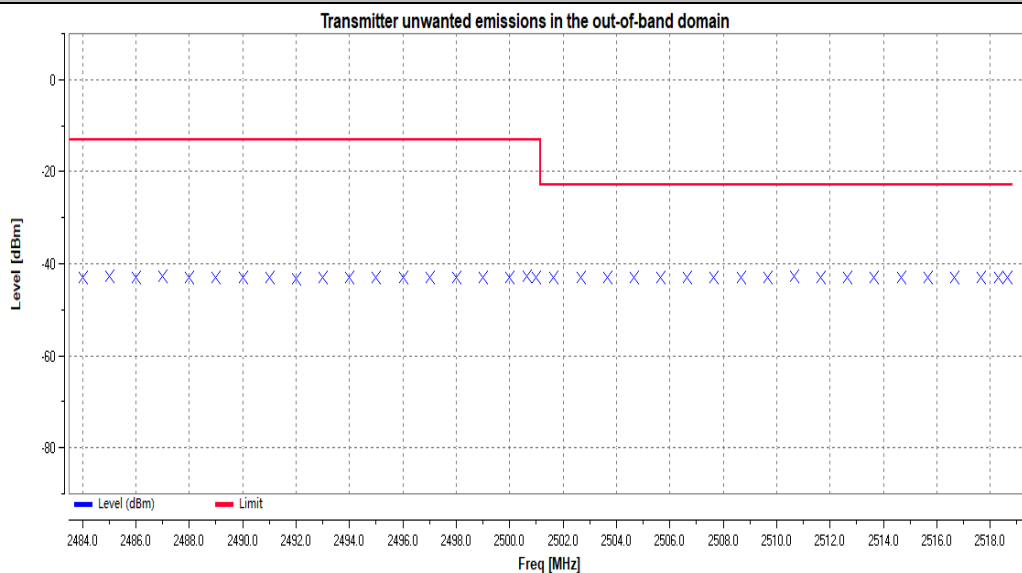
11N20MIMO_Ant1_2412_2483.5MHz to 2483.5MHz+2BW



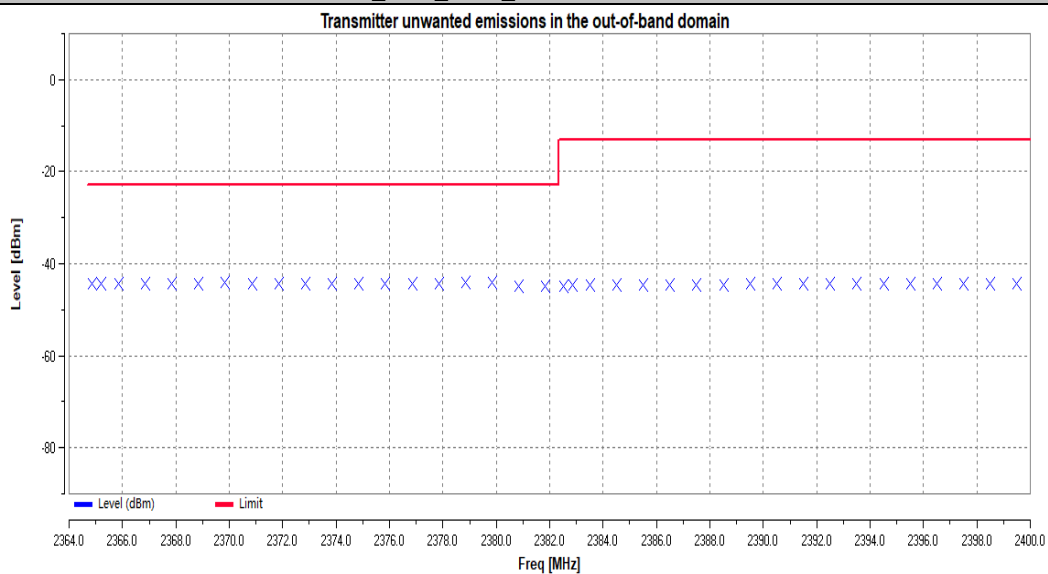
11N20MIMO_Ant2_2412_2400MHz-2BW to 2400MHz



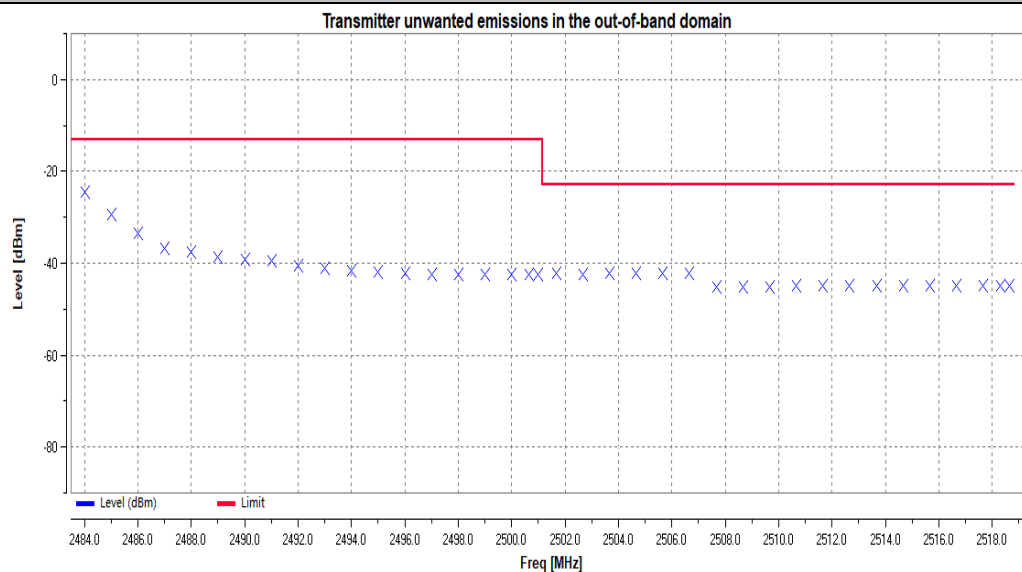
11N20MIMO_Ant2_2412_2483.5MHz to 2483.5MHz+2BW



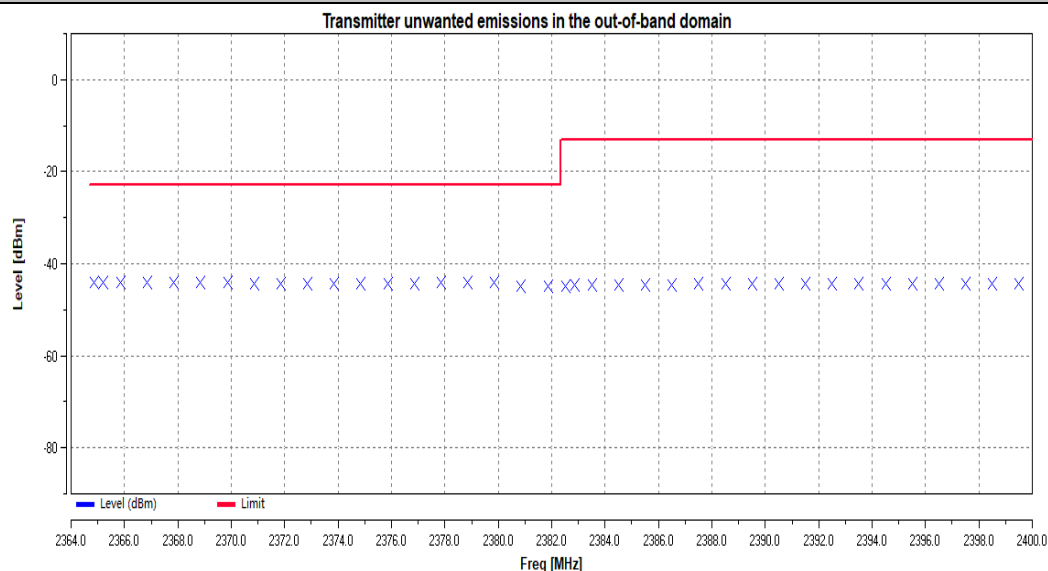
11N20MIMO_Ant1_2472_2400MHz-2BW to 2400MHz



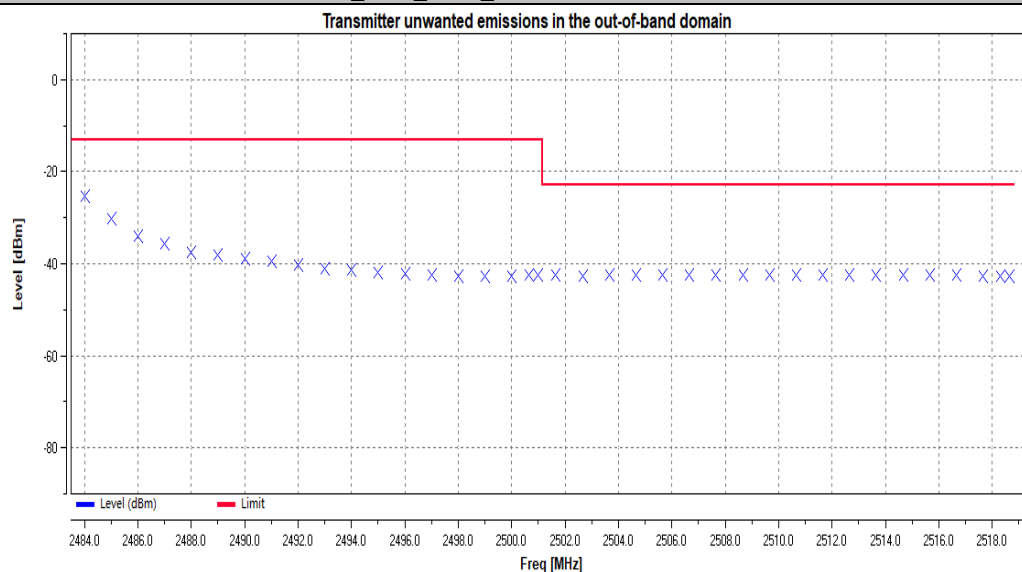
11N20MIMO_Ant1_2472_2483.5MHz to 2483.5MHz+2BW



11N20MIMO_Ant2_2472_2400MHz-2BW to 2400MHz

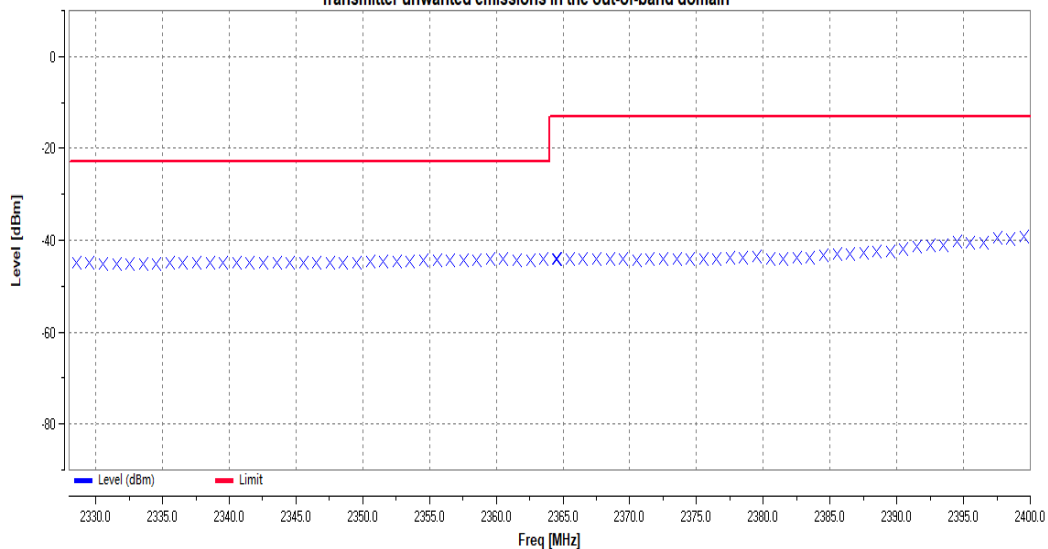


11N20MIMO_Ant2_2472_2483.5MHz to 2483.5MHz+2BW



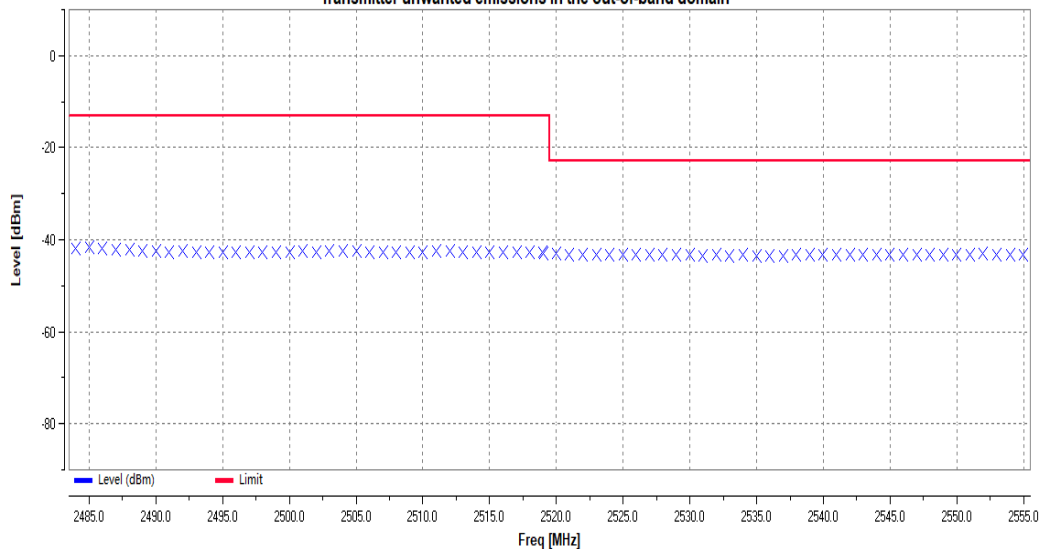
11N40MIMO_Ant1_2422_2400MHz-2BW to 2400MHz

Transmitter unwanted emissions in the out-of-band domain



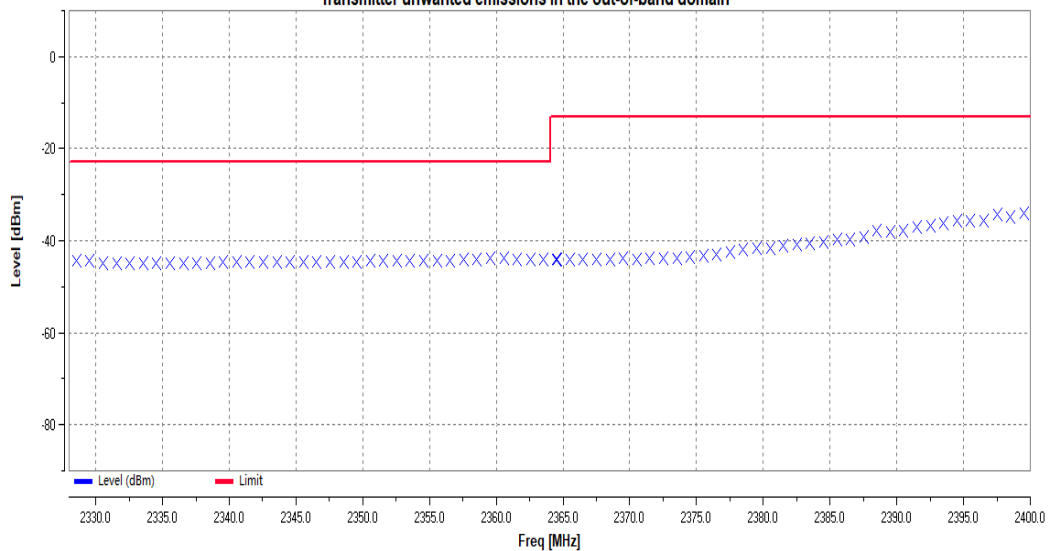
11N40MIMO_Ant1_2422_2483.5MHz+2BW

Transmitter unwanted emissions in the out-of-band domain

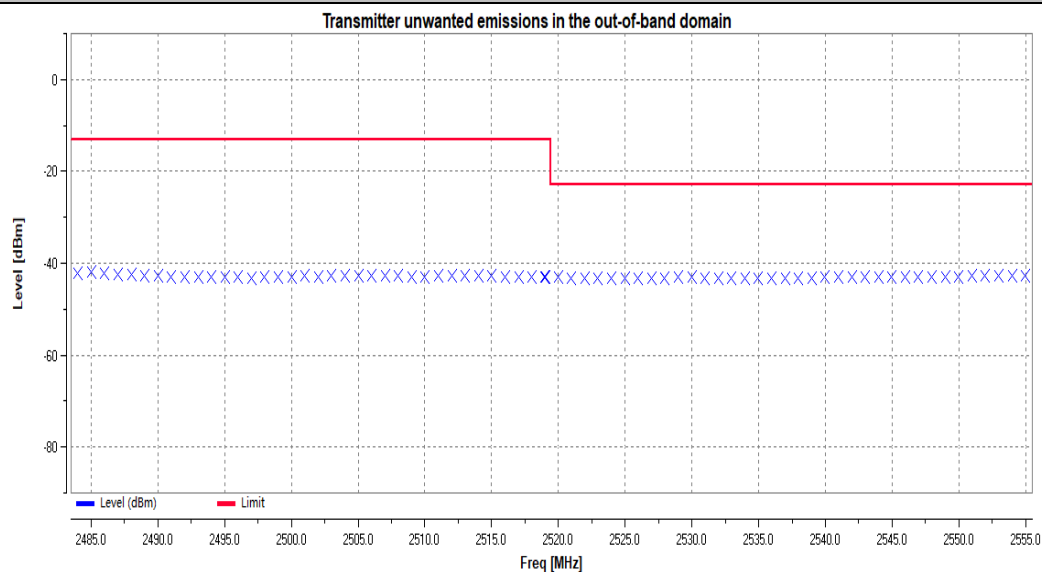


11N40MIMO_Ant2_2422_2400MHz-2BW to 2400MHz

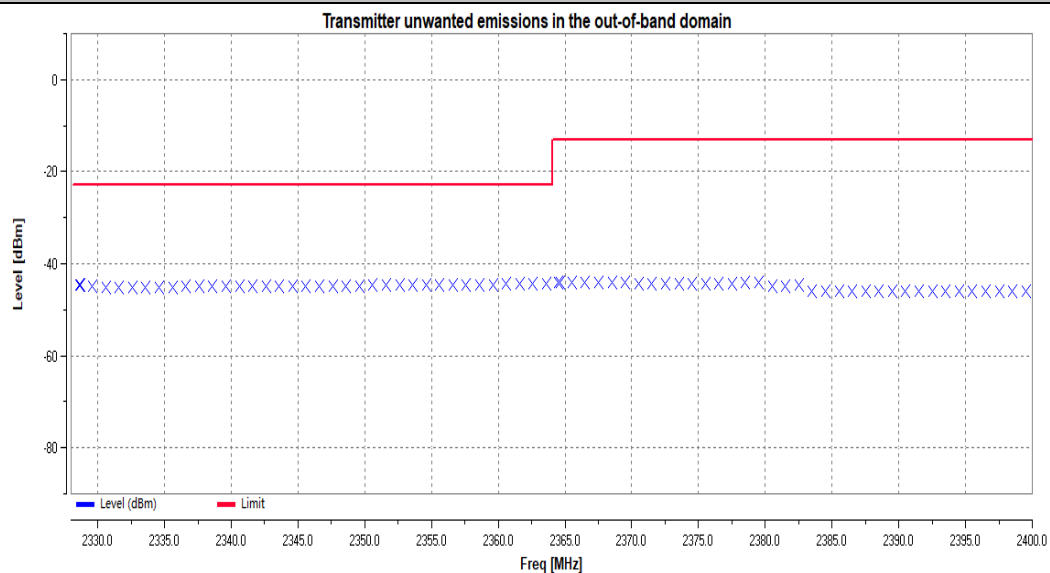
Transmitter unwanted emissions in the out-of-band domain



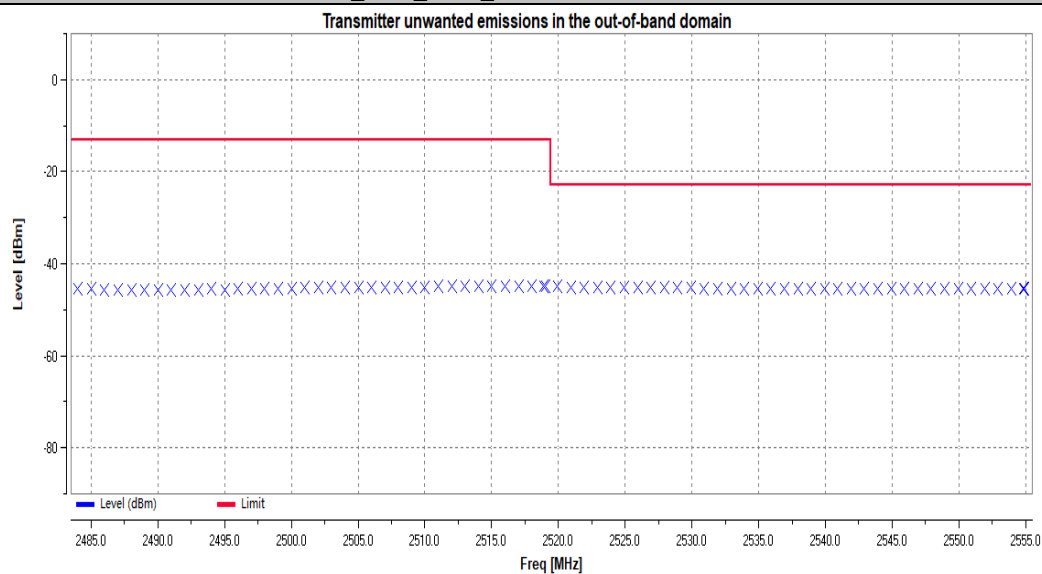
11N40MIMO_Ant2_2422_2483.5MHz to 2483.5MHz+2BW

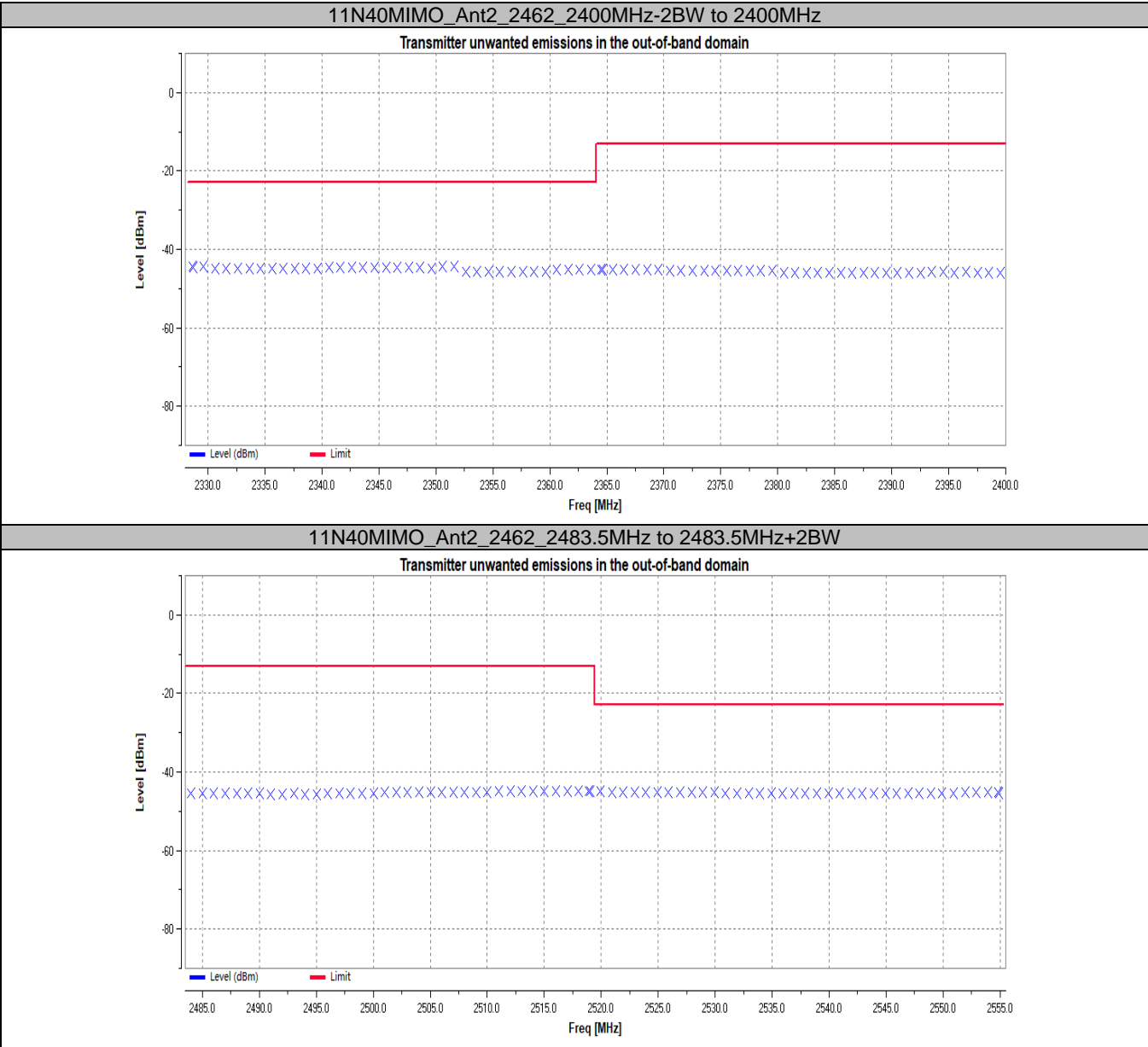


11N40MIMO_Ant1_2462_2400MHz-2BW to 2400MHz



11N40MIMO_Ant1_2462_2483.5MHz to 2483.5MHz+2BW



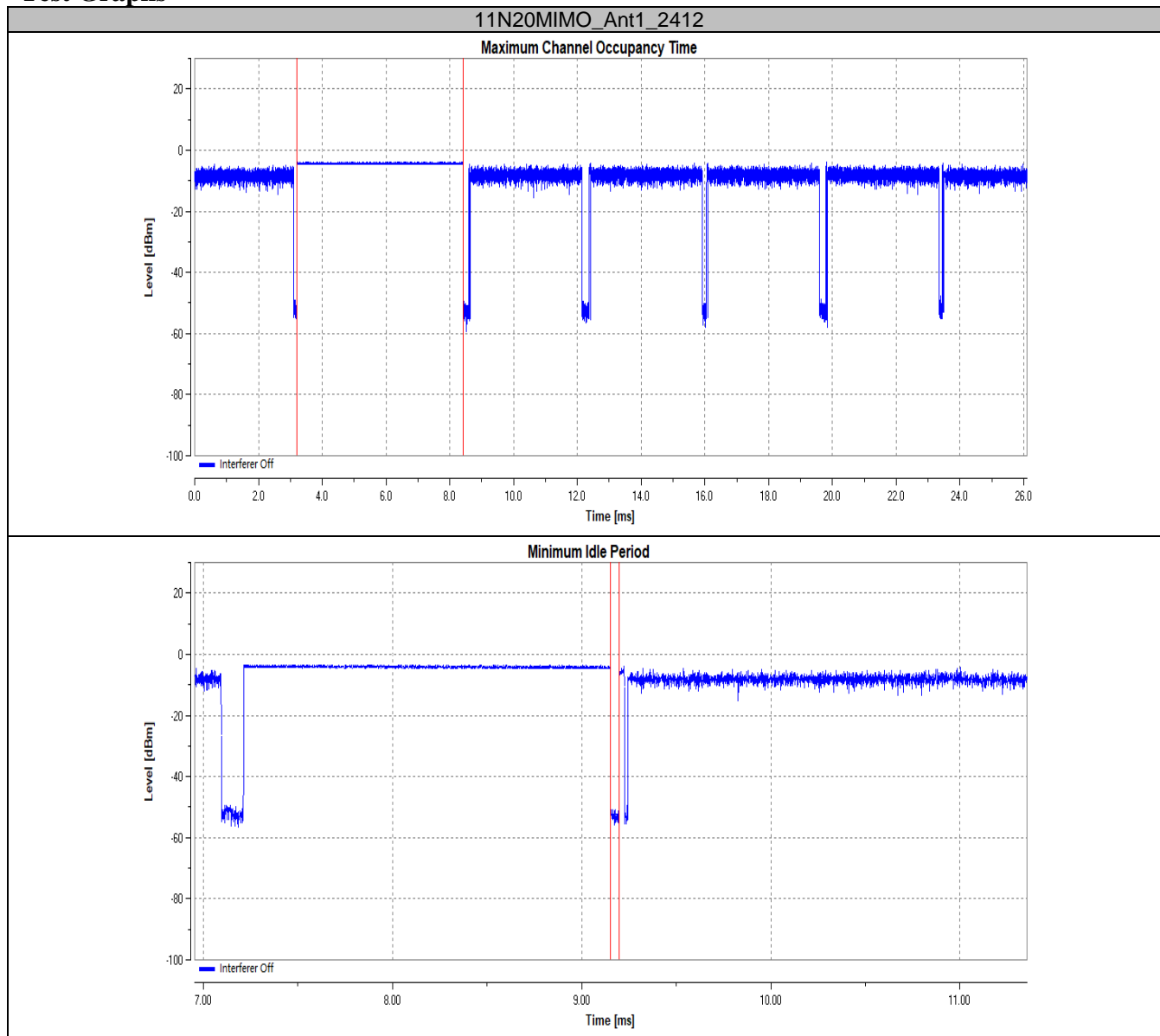


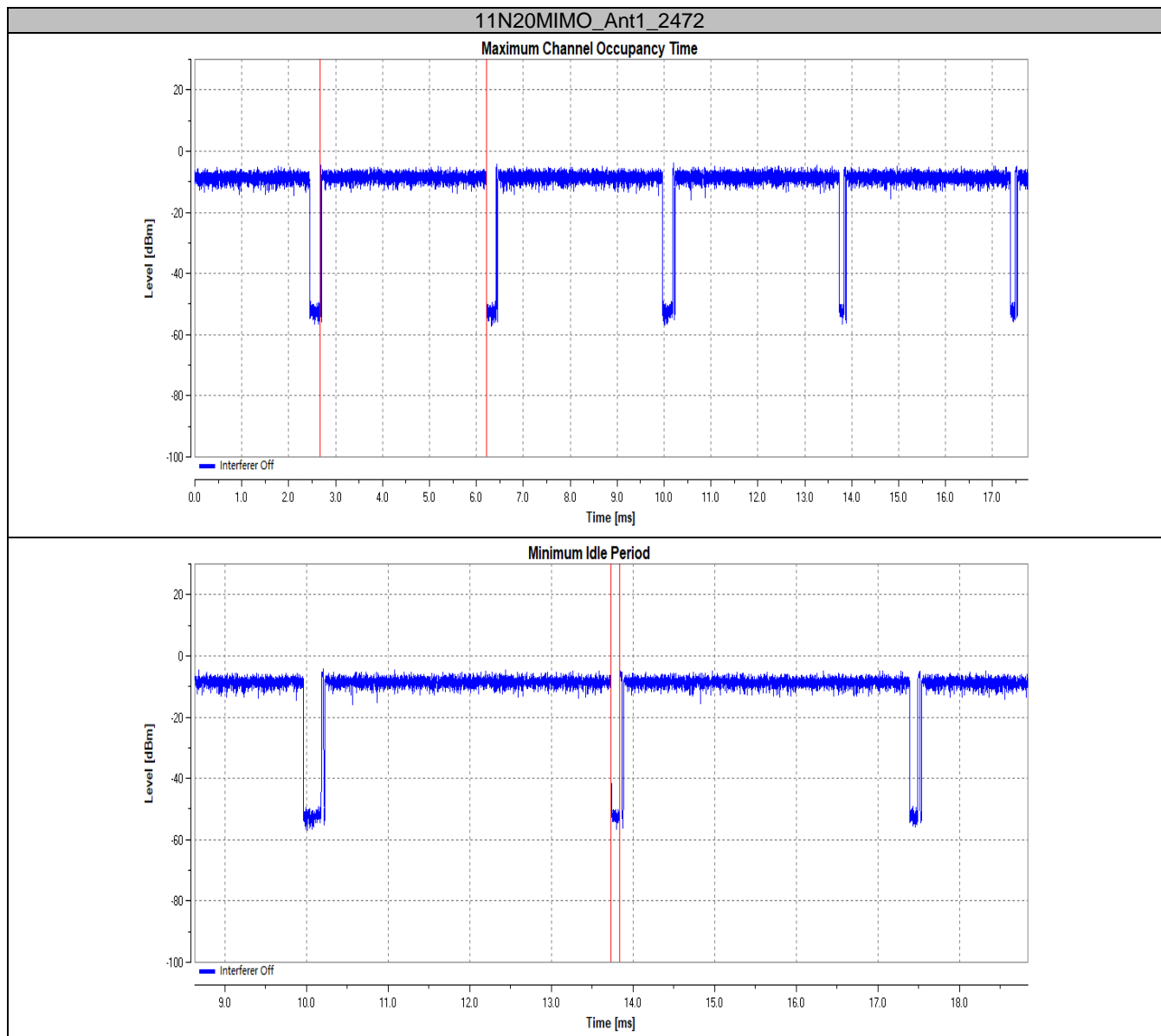
Appendix E: Adaptivity Test Result

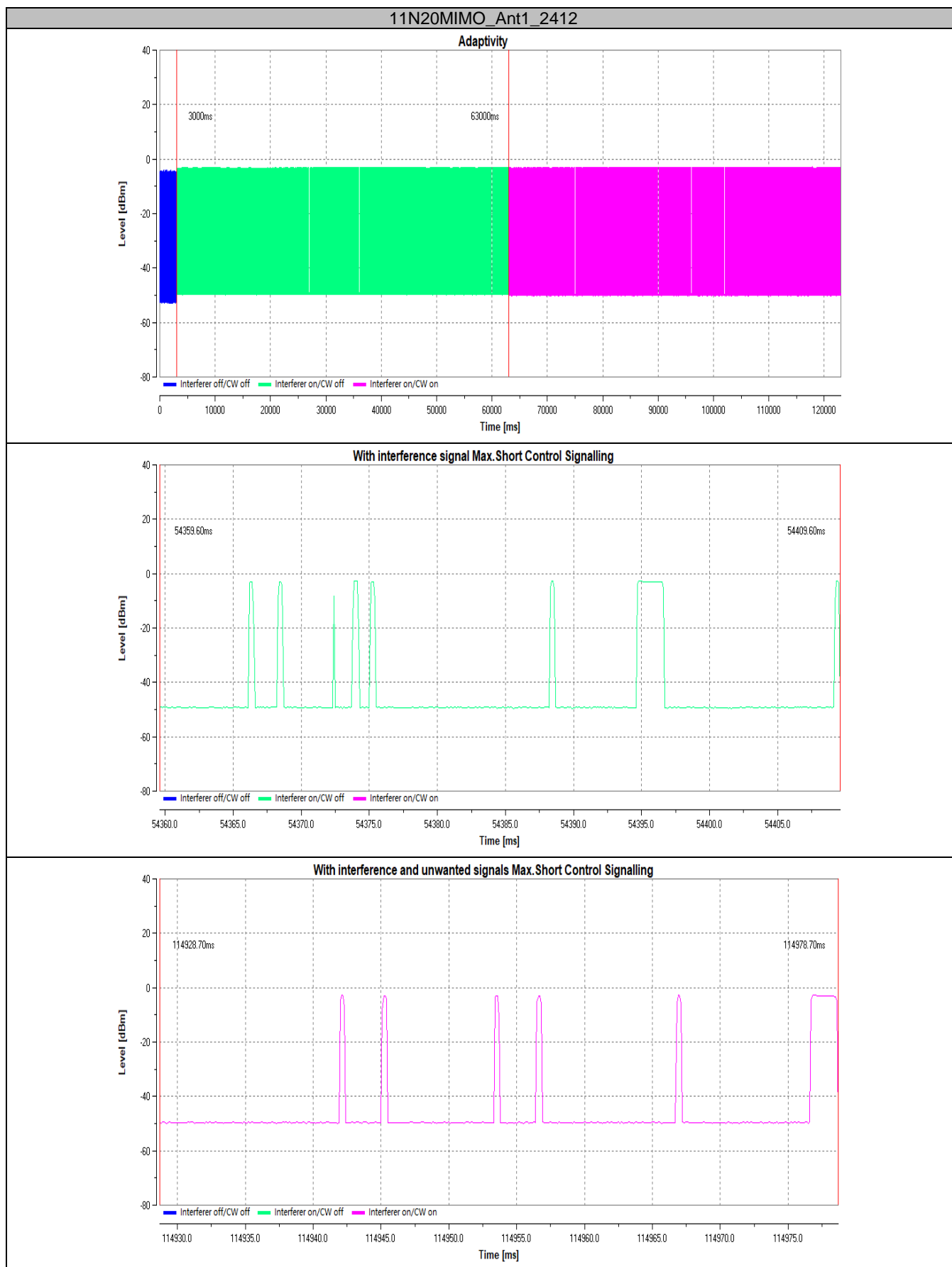
Test Mode	Antenna	Frequency[MHz]	Max.COT [ms]	Limit[ms]	Min.Idle Time[ms]	Limit[ms]	Verdict
11N20MIMO	Ant1	2412	5.220	13	0.044	0.018	PASS
		2472	3.551	13	0.102	0.018	PASS

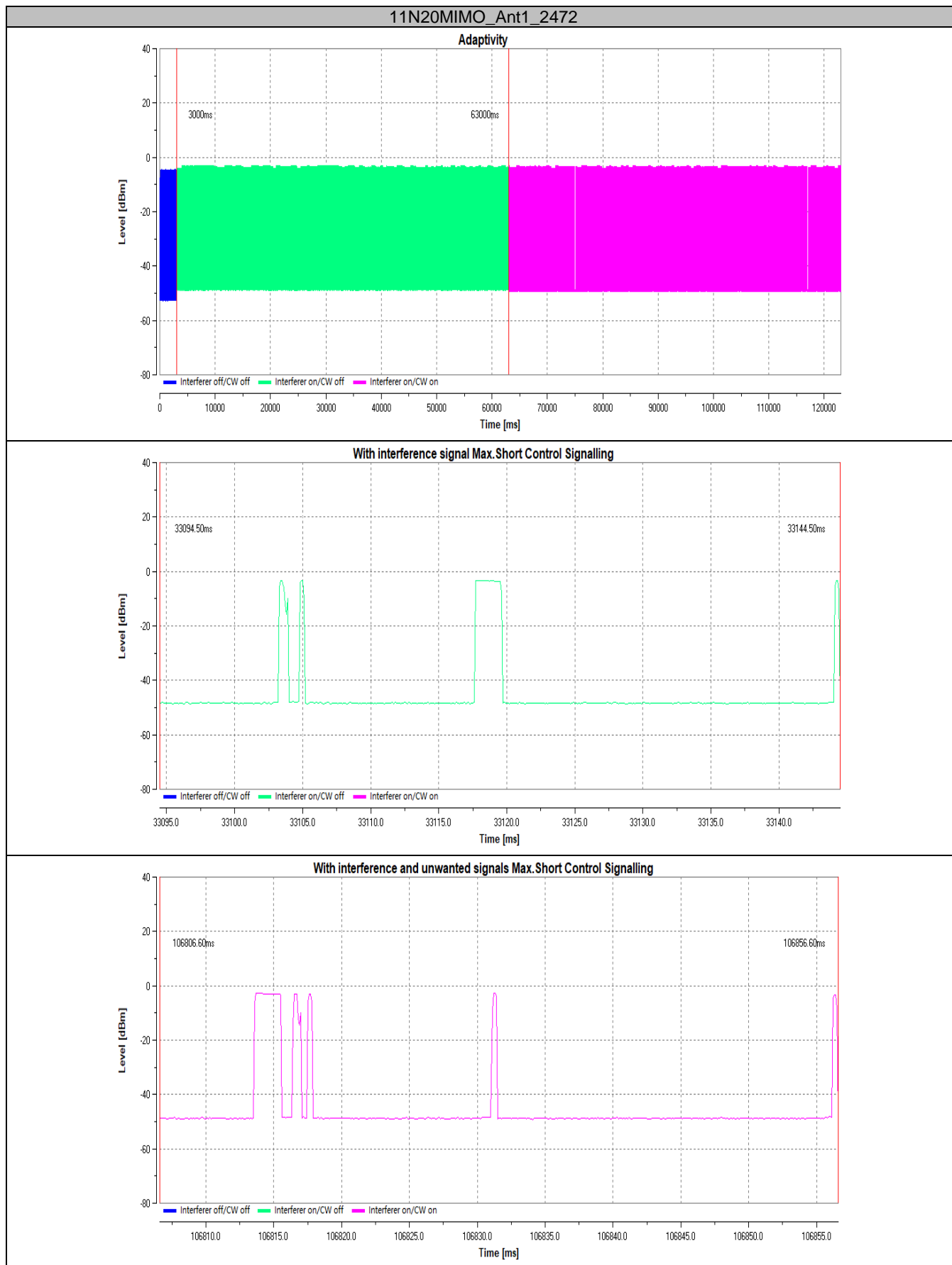
Test Mode	Antenna	Frequency[MHz]	Add Signal Type	Add Signal Time[ms]	Add Signal Level[dbm]	Max. Short Time [%]	Limit [%]	Verdict
11N20MIMO	Ant1	2412	AWGN	3000	-66.90	9.20	10	PASS
			CW	63000	-31.95	8.00	10	PASS
		2472	AWGN	3000	-66.90	7.00	10	PASS
			CW	63000	-31.95	7.80	10	PASS

Test Graphs









DECLARATION OF SIMILARITY LETTER

SHENZHEN TENDA TECHNOLOGY CO.,LTD.

Add: 6-8 Floor, Tower E3, No. 1001, Zhongshanyuan Road, Nanshan District, Shenzhen, China.
518052

Tel: 86-755-27657098

Fax: 86-755-27657178

E-mail: cert@tenda.cn

DECLARATION OF SIMILARITY

Date: 2024-11-28

To whom it may concern

Dear Sir or Madam:

We, SHENZHEN TENDA TECHNOLOGY CO.,LTD., hereby declare that the product: AC1200 Dual-Band Wi-Fi Range Extender, model: A18 is electrically identical with the model: A18 Pro which was tested by Bay Area Compliance Laboratories Corp. (Dongguan).

A description of the differences between those models and that are declared similar are as follows:

They are the same product, just the different model name and A18 is less one gigabit PHY than A18 Pro. the rest are the same.

Please contact me should there be need for any additional clarification or information.

Best Regards,

Signature:

Printed Name: Shen Yue

Title: Engineer

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