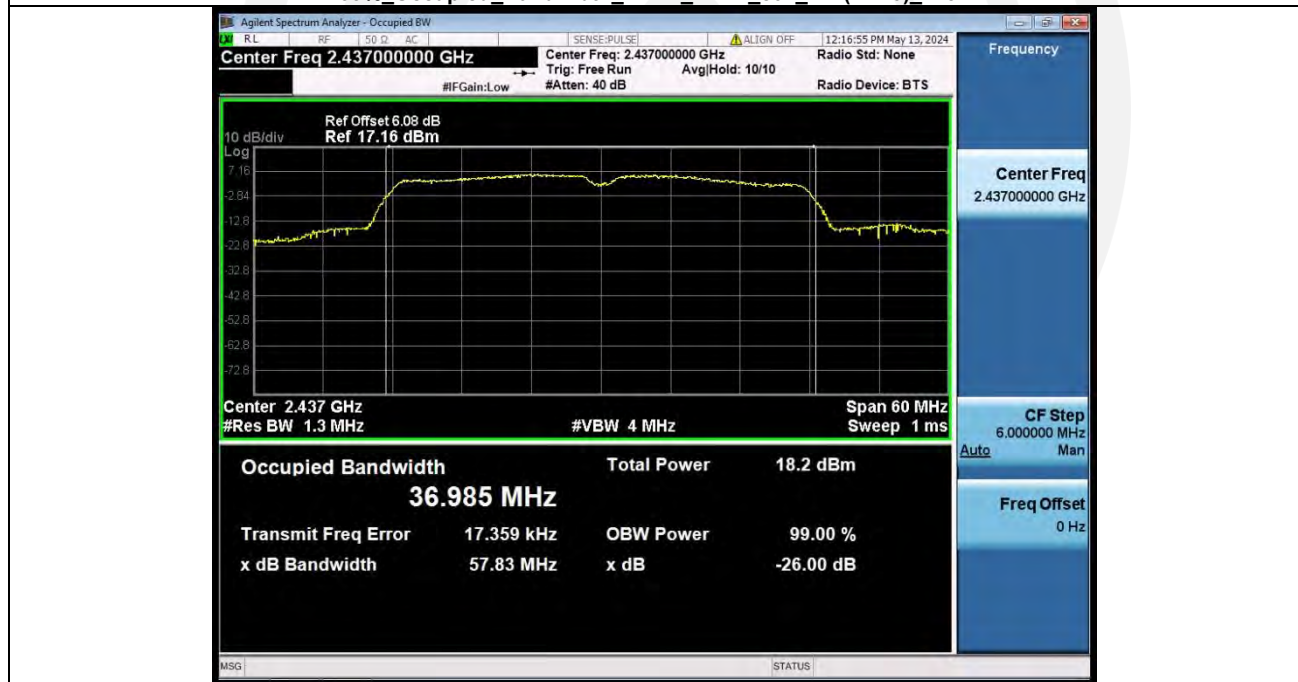


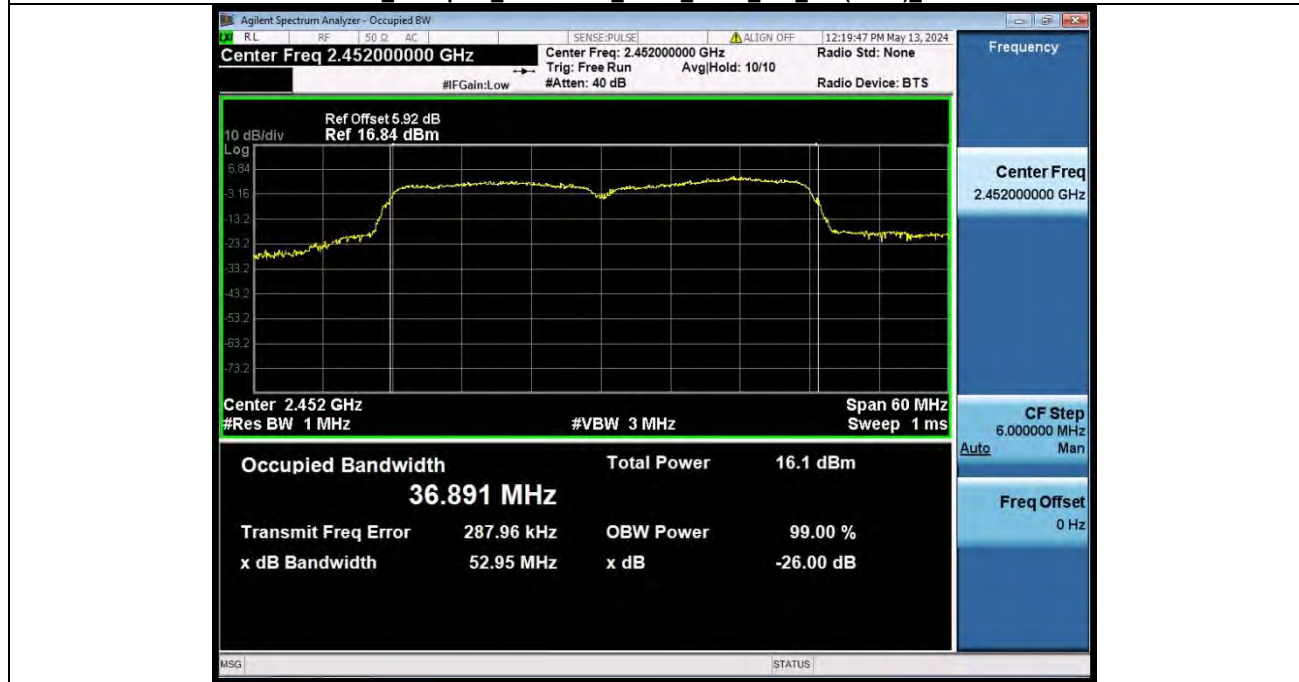
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2422



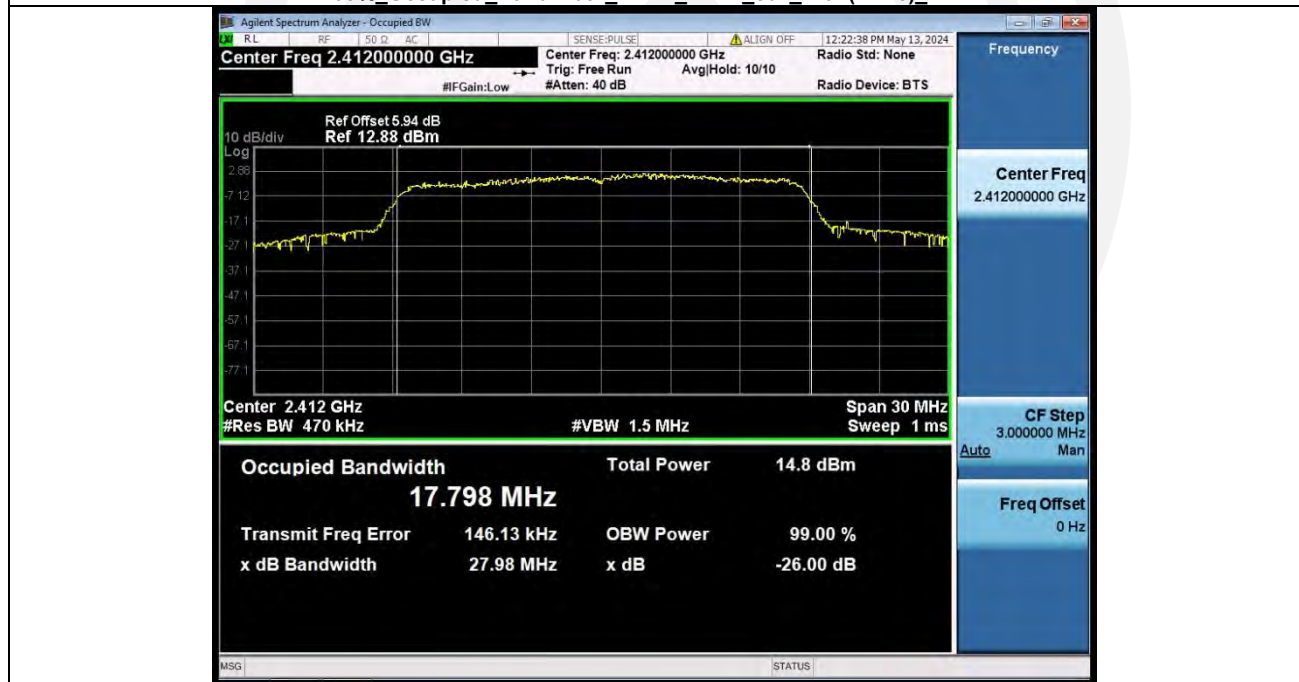
99%_Occupied_Bandwidth_NVNT_ANT1_802_11n(HT40)_2437



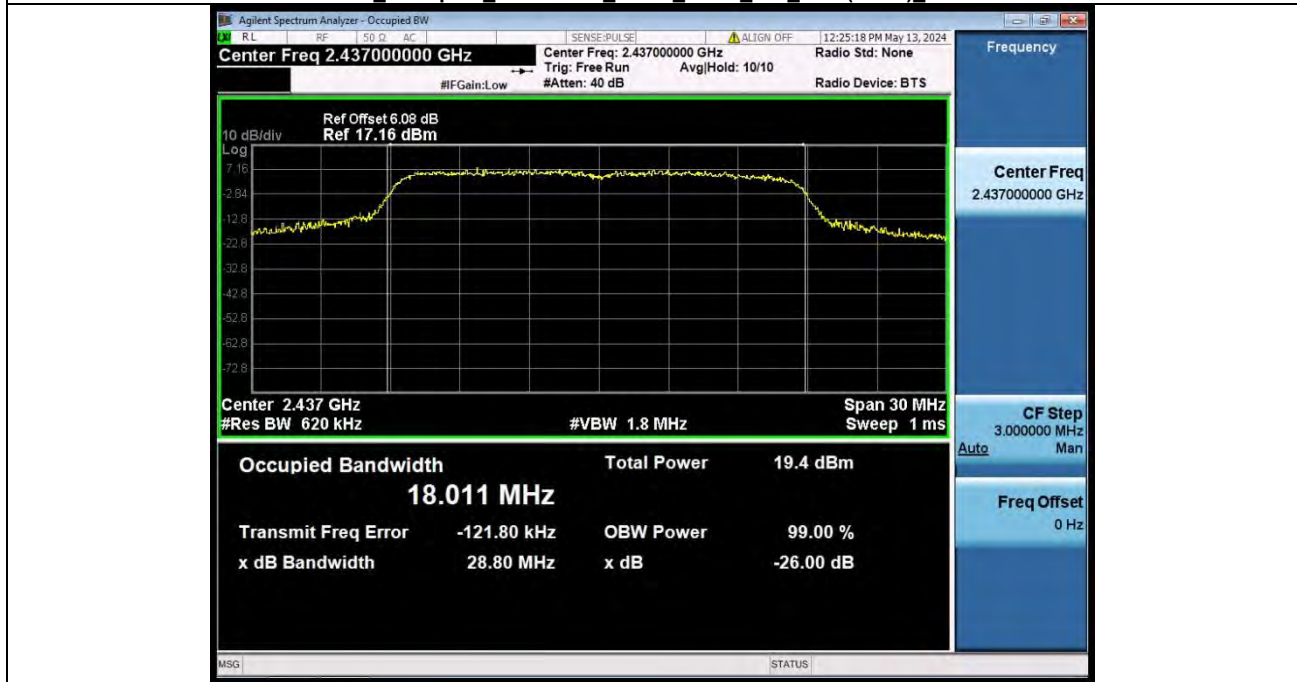
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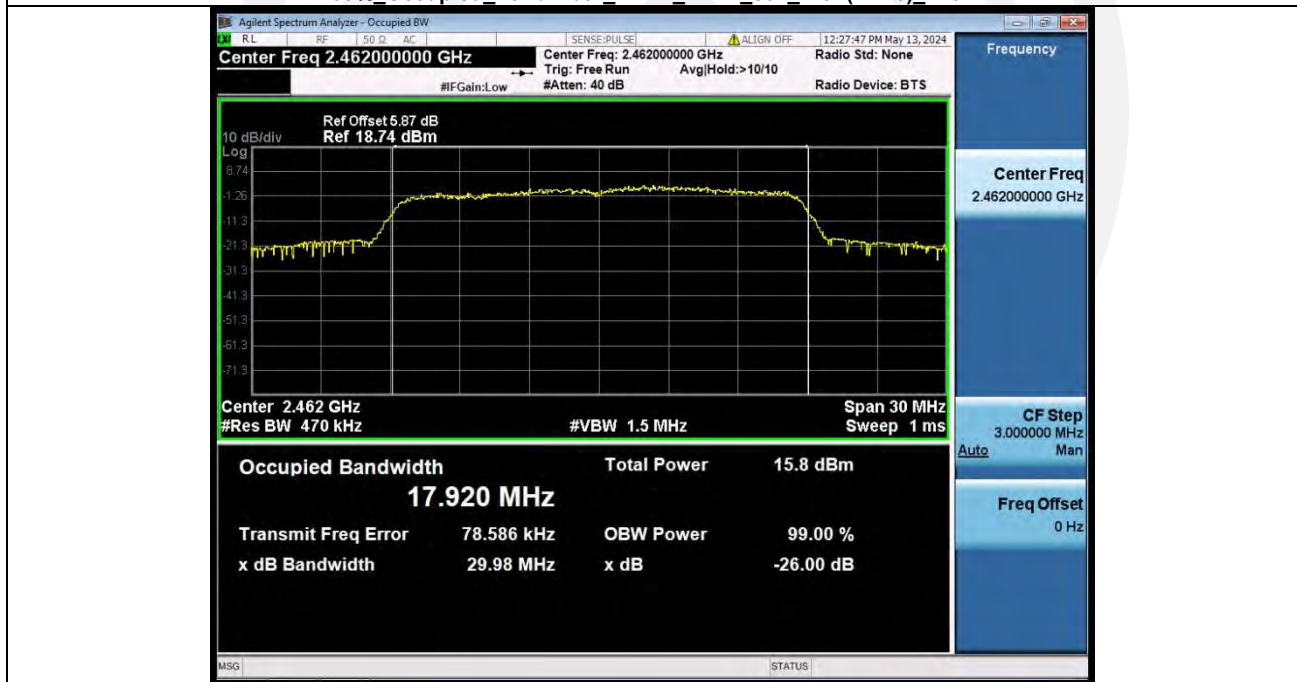
99%_Occupied_Bandwidth_NVNT_ANT1_802_11ax(HE20)_2412



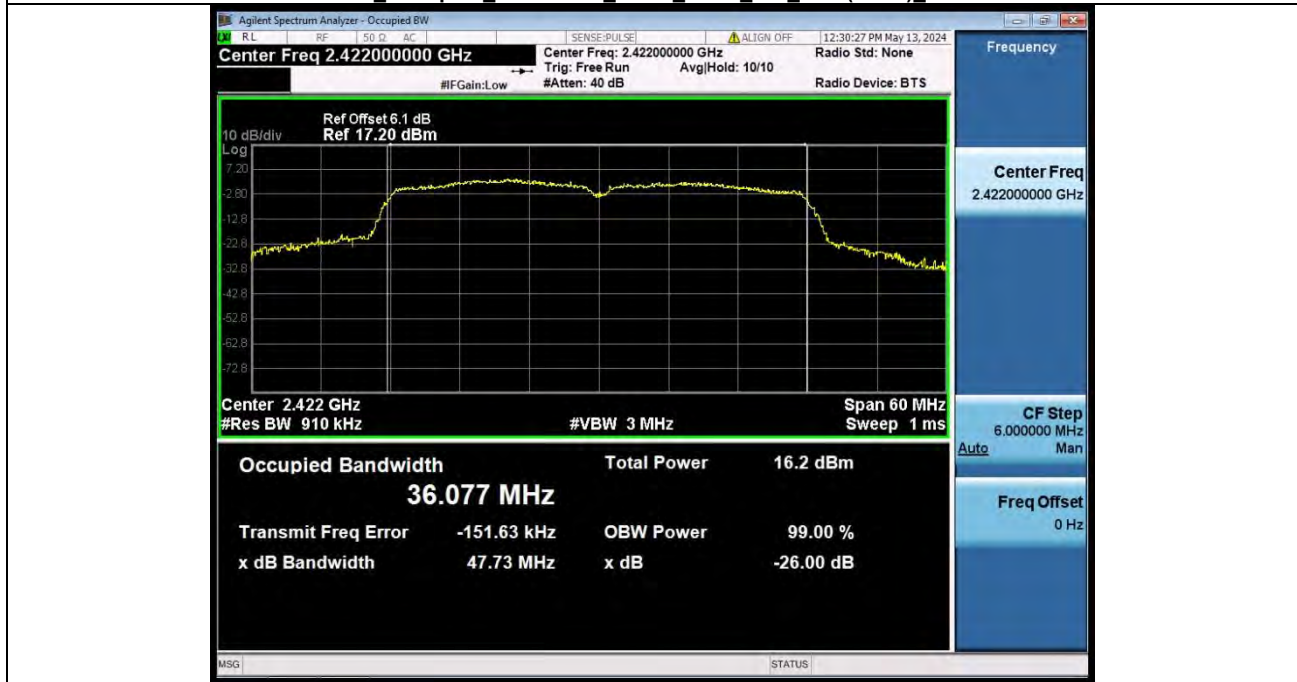
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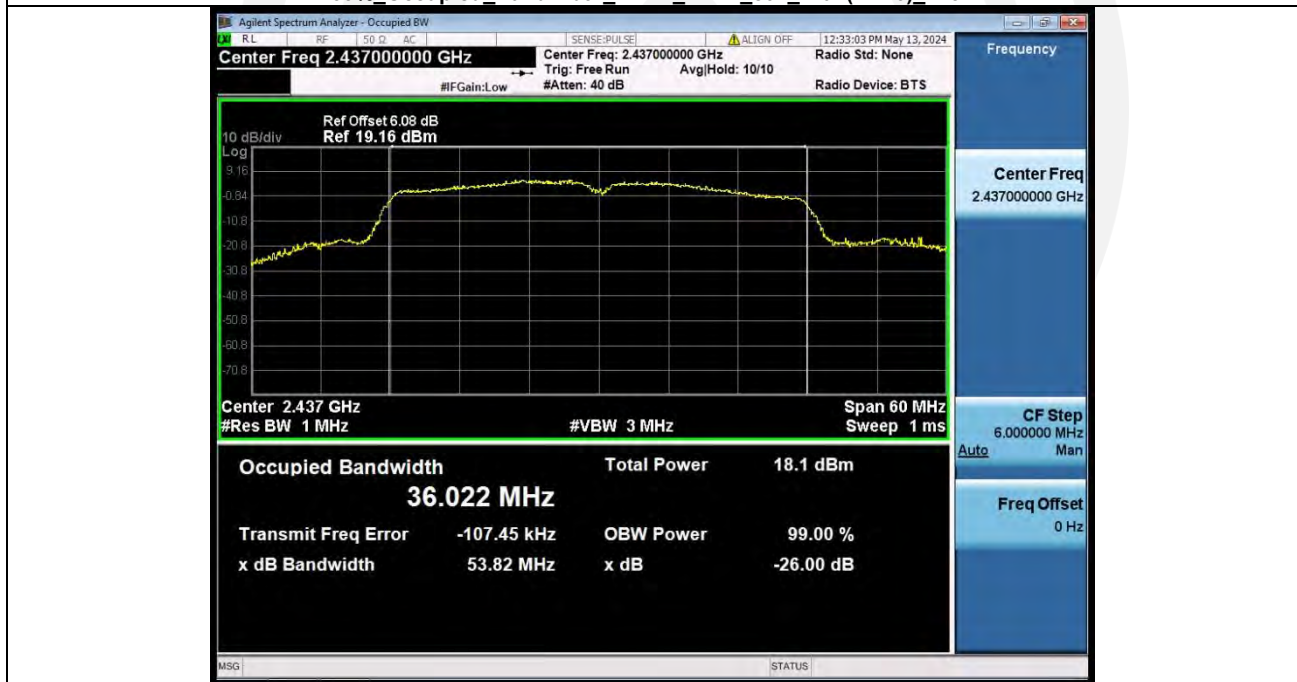
99%_Occupied_Bandwidth_NVNT_ANT1_802_11ax(HE20)_2462



99%_Occupied_Bandwidth_NVNT_ANT1_802_11ax(HE40)_2422



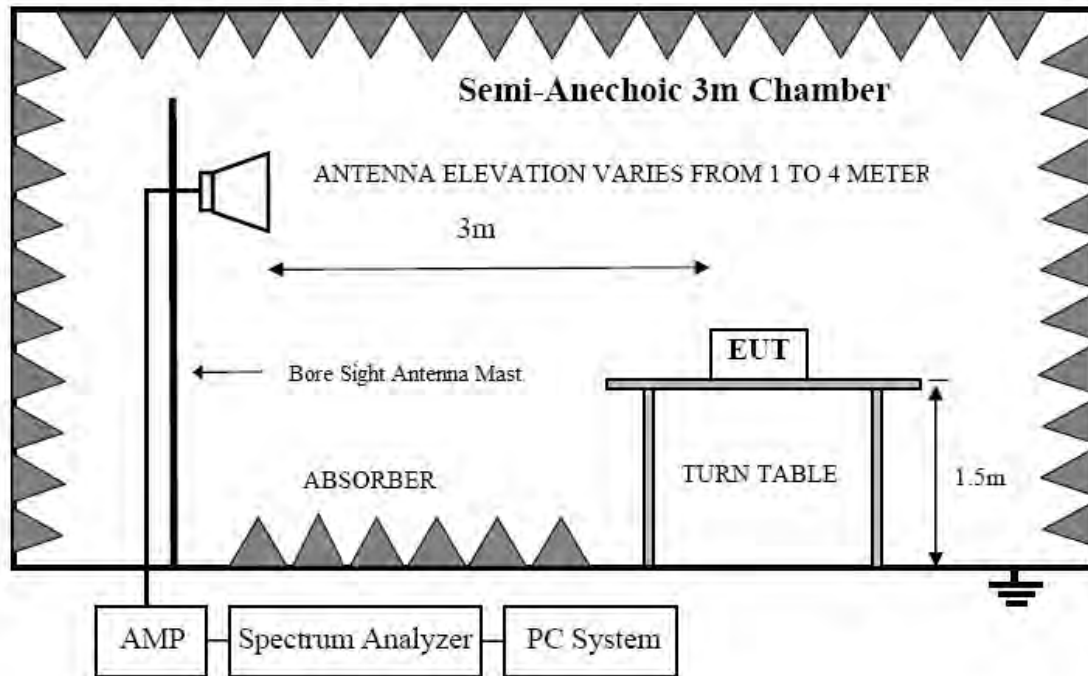
99%_Occupied_Bandwidth_NVNT_ANT1_802_11ax(HE40)_2437





9. Band Edge Test

9.1. Block Diagram of Test Setup



9.2. Test Limit

Radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Please refer RSS-GEN & FCC PART 15: 15.247

9.3. Test Procedure

Refer to ANSI C 63.10, Clause 6.10.

All restriction band and non- restriction band have been tested, only worse case is reported.

Details see the KDB558074 D01 Meas Guidance v05r02

9.2.1 Put the EUT on a 1.5m high table, power on the EUT. Emissions were scanned and measured rotating the EUT to 360 degrees, Find the maximum Emission

9.2.2 Check the spurious emissions out of band.

9.2.3 RBW 1MHz, VBW 3MHz, peak detector for peak value, RBW 1MHz, VBW 10Hz, RMS detector for AV value.

9.4. Test Results

Test Date : 2024.04.26					Temperature : 26℃			
Test Engineer : Felix Pang					Humidity : 54%			
Test Results : PASS								
Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11b TX 2412MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	71.90	-21.62	50.28	74.00	-23.72	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	78.87	-26.08	52.79	74.00	-21.21	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	70.26	-21.62	48.64	74.00	-25.36	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	78.03	-26.08	51.95	74.00	-22.05	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11b TX 2462MHz								
1	2483.5	H	77.11	-25.84	51.27	74.00	-22.73	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	72.37	-25.84	46.53	74.00	-27.47	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11g TX 2412MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	71.90	-21.62	50.28	74.00	-23.72	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	76.29	-26.08	50.21	74.00	-23.79	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	69.95	-21.62	48.33	74.00	-25.67	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	79.53	-26.08	53.45	74.00	-20.55	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11g TX 2462MHz								
1	2483.5	H	74.84	-25.84	49.00	74.00	-25.00	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	75.13	-25.84	49.29	74.00	-24.71	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11n/HT20 TX 2412MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	71.90	-21.62	50.28	74.00	-23.72	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	78.39	-26.08	52.31	74.00	-21.69	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	67.77	-21.62	46.15	74.00	-27.85	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	77.76	-26.08	51.68	74.00	-22.32	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11n/HT20 TX 2462MHz								
1	2483.5	H	73.78	-25.84	47.94	74.00	-26.06	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	71.73	-25.84	45.89	74.00	-28.11	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11n/HT40 TX 2422MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	71.74	-21.62	50.12	74.00	-23.88	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	77.01	-26.08	50.93	74.00	-23.07	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	69.97	-21.62	48.35	74.00	-25.65	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	77.72	-26.08	51.64	74.00	-22.36	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11n/HT40 TX 2452MHz								
1	2483.5	H	74.12	-25.84	48.28	74.00	-25.72	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	72.94	-25.84	47.10	74.00	-26.90	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11ax20 TX 2412MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	73.08	-21.62	51.46	74.00	-22.54	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	78.50	-26.08	52.42	74.00	-21.58	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	70.47	-21.62	48.85	74.00	-25.15	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	76.78	-26.08	50.70	74.00	-23.30	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11ax20 TX 2462MHz								
1	2483.5	H	76.97	-25.84	51.13	74.00	-22.87	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	74.66	-25.84	48.82	74.00	-25.18	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note: 1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.								

Frequency Range : 2310MHz~2410MHz								
Test Mode : IEEE 802.11ax40 TX 2422MHz								
No.	Freq MHz	Polarity	Reading (dBuV/m)	Correct Factor	Result (dBuV/m)	Limit (dBuV/m)	Margin	Remark
1	2390	H	70.72	-21.62	49.10	74.00	-24.90	Peak
2	2390	H	--	-21.62	--	54.00	--	Avg
3	2400	H	76.56	-26.08	50.48	74.00	-23.52	Peak
4	2400	H	--	-26.08	--	54.00	--	Avg
1	2390	V	67.13	-21.62	45.51	74.00	-28.49	Peak
2	2390	V	--	-21.62	--	54.00	--	Avg
3	2400	V	79.51	-26.08	53.43	74.00	-20.57	Peak
4	2400	V	--	-26.08	--	54.00	--	Avg
Frequency Range : 2450MHz~2550MHz								
Test Mode : IEEE 802.11ax40 TX 2452MHz								
1	2483.5	H	73.61	-25.84	47.77	74.00	-26.23	Peak
2	2483.5	H	--	-25.84	--	54.00	--	Avg
1	2483.5	V	75.20	-25.84	49.36	74.00	-24.64	Peak
2	2483.5	V	--	-25.84	--	54.00	--	Avg
Note:	1. Means other frequency and mode comply with standard requirements and at least have 20dB margin. 2. Correct Factor=Cable Loss+ Antenna Factor-Amplifier Gain. Result=Reading + Correct Factor, Margin= Result-Limit. 3. If the limits for the measurement with the average detector are met when using a receiver with a peak detector, the test unit shall be deemed to meet both limits and the measurement with the average detector need not be carried out.							

10. Frequency stability

10.1. Test limit

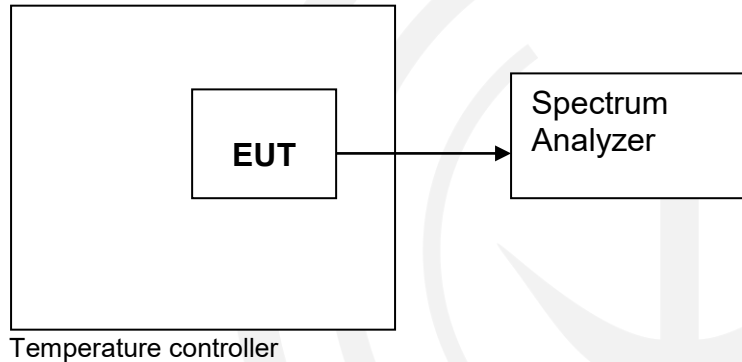
Please refer section RSS-Gen.

Regulation RSS-Gen If the frequency stability of the licence-exempt radio apparatus is not specified in the applicable RSS, the fundamental emissions of the radio apparatus should be kept within at least the central 80% of its permitted operating frequency band in order to minimize the possibility of out-of-band operation. In addition, its occupied bandwidth shall be entirely outside the restricted bands and the prohibited TV bands of 54-72 MHz, 76-88 MHz, 174-216 MHz, and 470-602 MHz, unless otherwise indicated.

10.2. Test Procedure

The following equipment are installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.3. Test Setup



10.4.Test Results

Assigned Frequency(MHz): 2412MHz(802.11b mode)					
Voltage	Temperature	Measured Frequency (MHz)	Frequency stability (MHz)	Limit (MHz)	Results
Low DC 10.8V	+20℃	2412.0041	0.0041	±0.020	Pass
Normal DC 12.0V	-20℃	2412.0014	0.0014	±0.020	Pass
	-10℃	2412.0039	0.0039	±0.020	Pass
	0℃	2412.0031	0.0031	±0.020	Pass
	+10℃	2412.0071	0.0030	±0.020	Pass
	+20℃	2412.0005	0.0005	±0.020	Pass
	+30℃	2412.0067	0.0028	±0.020	Pass
	+40℃	2412.0030	0.0030	±0.020	Pass
	+50℃	2412.0014	0.0014	±0.020	Pass
	+60℃	2412.0039	0.0039	±0.020	Pass
High DC 13.2V	+20℃	2412.0042	0.0042	±0.020	Pass

Note: The data reflects the worst test results.

11. Antenna Requirement

11.1. Standard Requirement

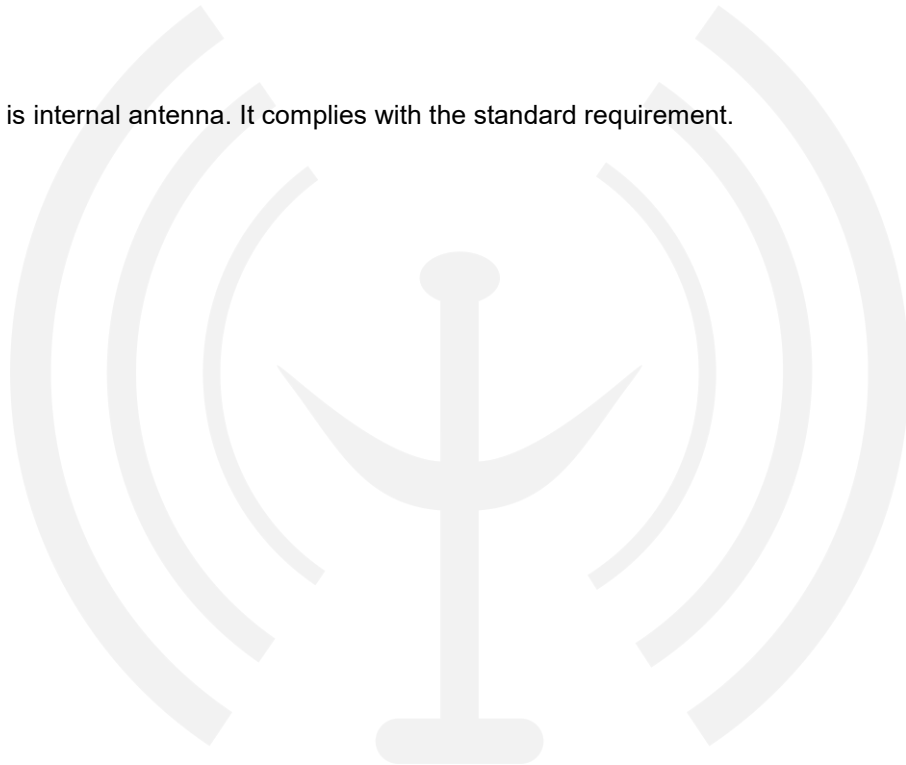
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2. Antenna Connected Construction

The antenna connector is unique antenna and no consideration of replacement. Please see EUT photo for details.

11.3. Results

The EUT antenna is internal antenna. It complies with the standard requirement.



12. Photos of test setup

Reference to the **appendix I Test Setup Photo** for details.

13. Photos of EUT

Reference to the **appendix II external photos** and **appendix III internal photos** for details.

----- END OF REPORT-----

