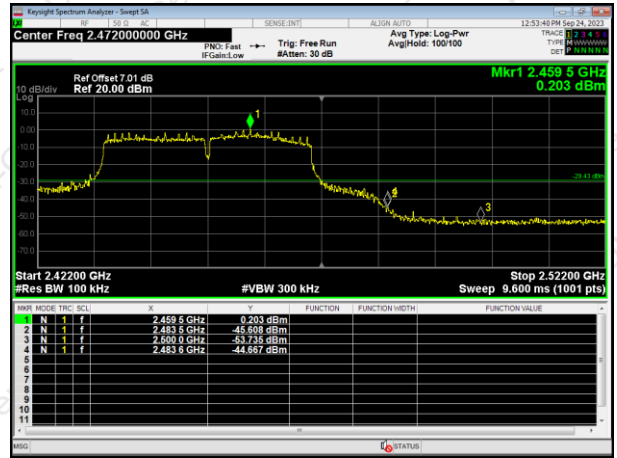
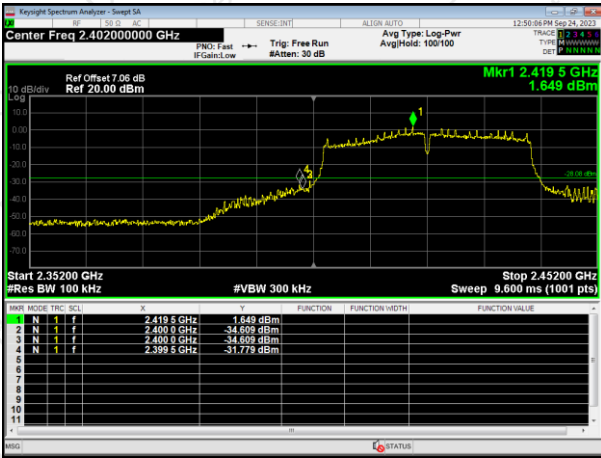




802.11n HT40

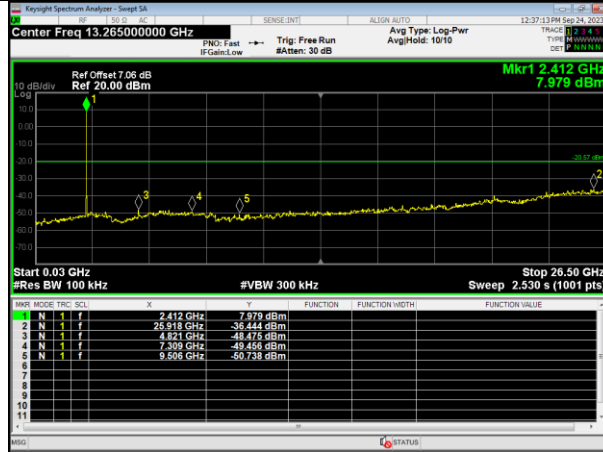




For Conducted

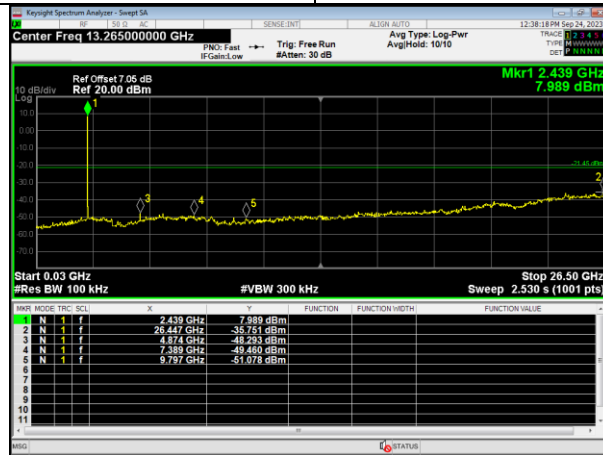
During the test, pre-scan the all modulation, and found the 802.11b mode which it is worse case.

Test channel: Lowest channel



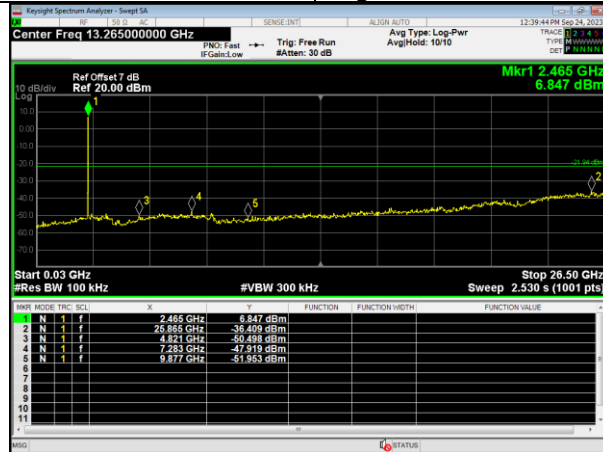
0.03GHz~26.5GHz

Test channel: Middle channel



0.03GHz~26.5GHz

Test channel: Highest channel



0.03GHz~26.5GHz



4. AVERAGE OUTPUT POWER

4.1 APPLIED PROCEDURES / LIMIT

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

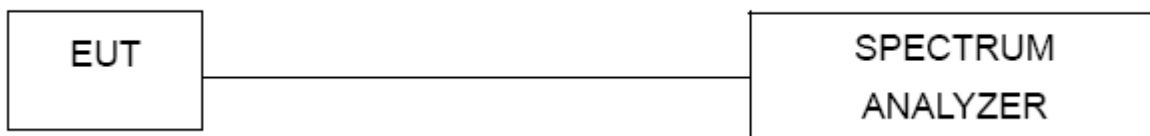
4.1.1 TEST PROCEDURE

- a.The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b.Set span to at least 1.5 times the OBW.
- c.Set RBW = 1% to 5% of the OBW, not to exceed 1 MHz.
- d.Set VBW ≥ [3 × RBW].
- e.Number of points in sweep ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
- f.Sweep time = auto.
- g.Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- h.If transmit duty cycle < 98%, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at the maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle ≥ 98%, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
- i.Trace average at least 100 traces in power averaging (rms) mode.
- j.Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



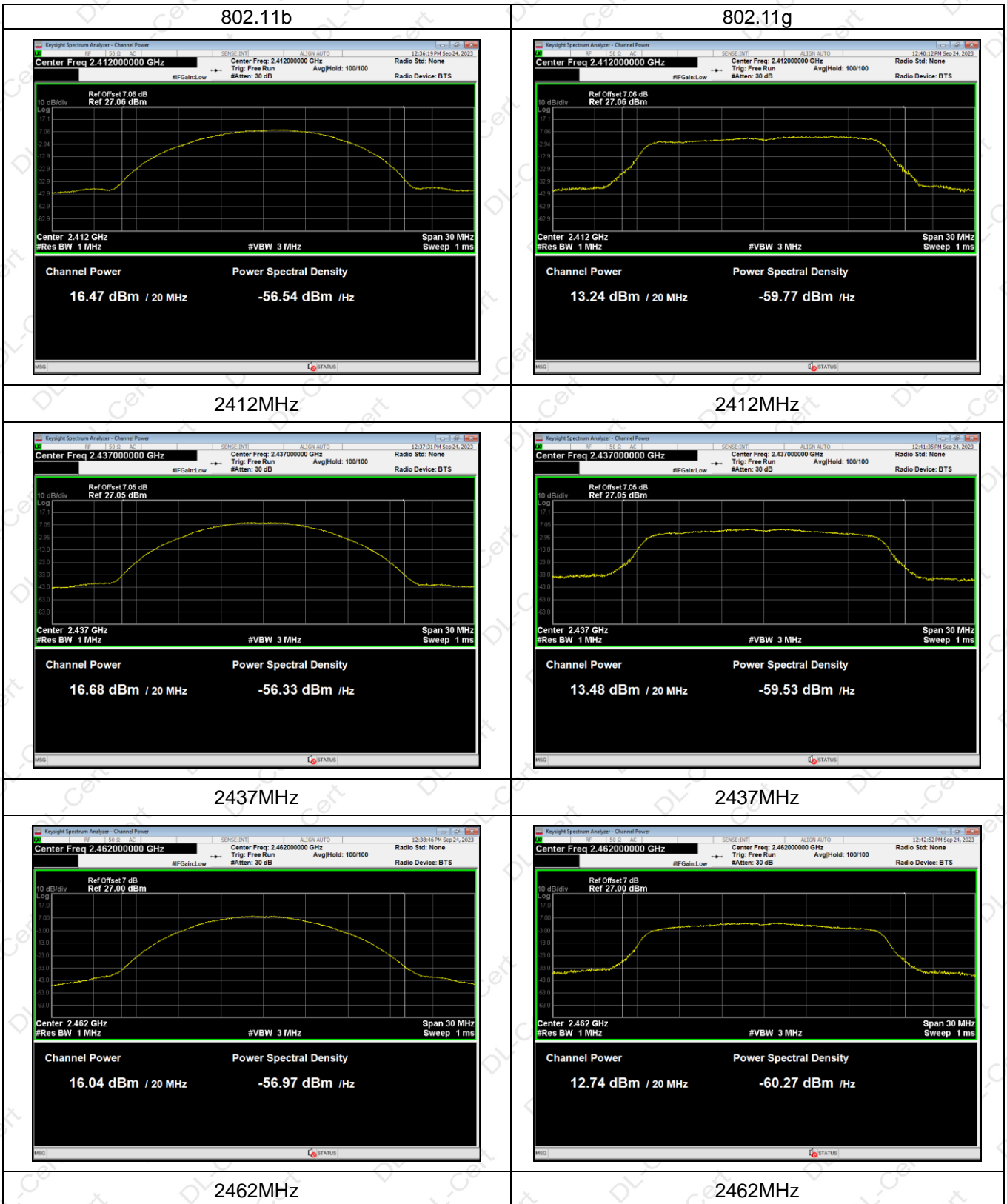
4.1.4 EUT OPERATION CONDITIONS

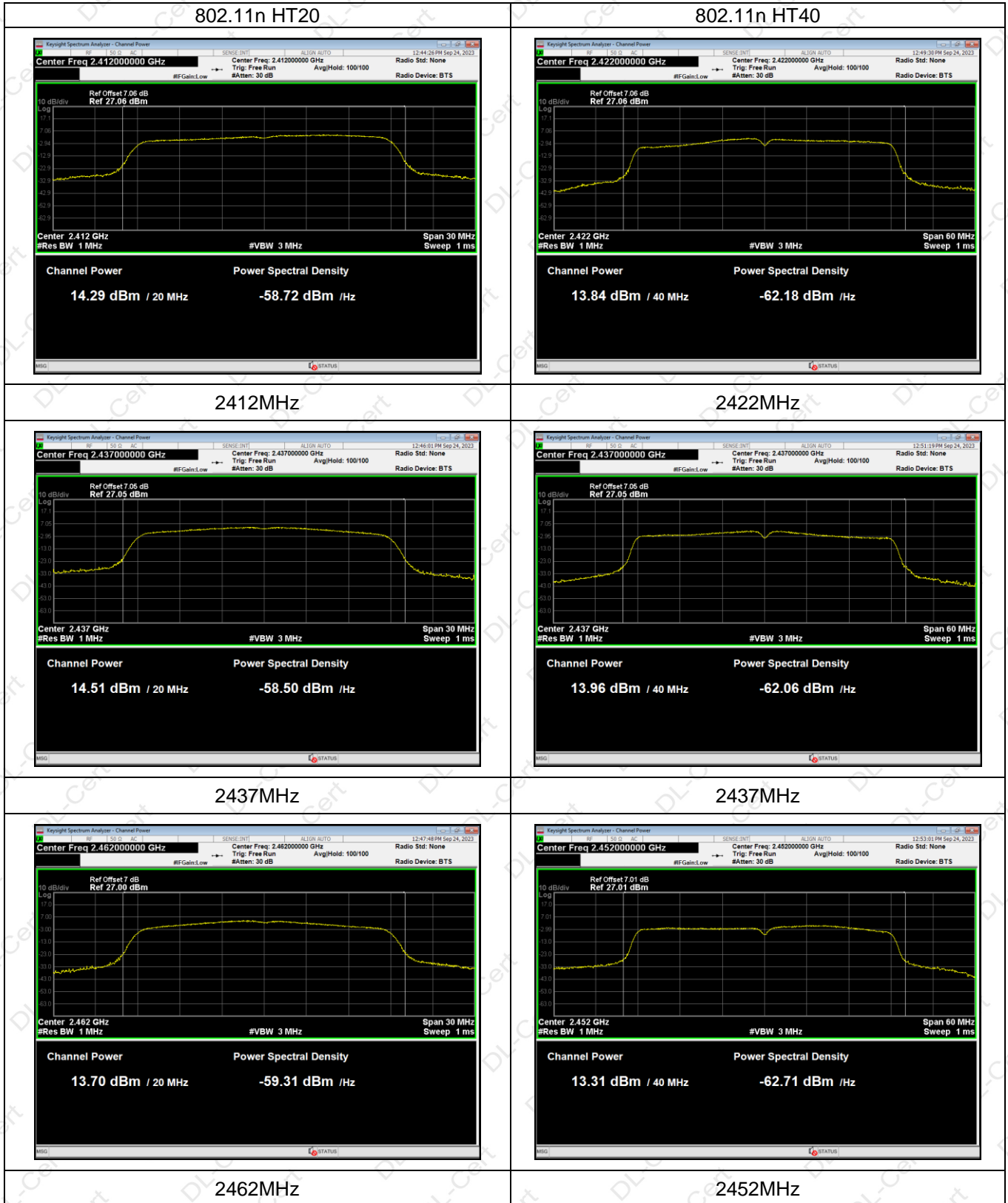
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

**4.1.5 TEST RESULTS**

Temperature:	25 °C	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz

Mode	Test Channel	Average Output Power (dBm)	LIMIT (dBm)
802.11b	Low	16.47	30.00
	Middle	16.68	30.00
	High	16.04	30.00
802.11g	Low	13.24	30.00
	Middle	13.48	30.00
	High	12.74	30.00
802.11n HT20	Low	14.29	30.00
	Middle	14.51	30.00
	High	13.70	30.00
802.11n HT40	Low	13.84	30.00
	Middle	13.96	30.00
	High	13.31	30.00







5. POWER SPECTRAL DENSITY TEST

5.1 APPLIED PROCEDURES / LIMIT

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

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW \geq 3kHz
VB	VBW \geq 3RBW
Detector	power averaging (rms) or sample detector (when rms not available).
Trace	Max Hold
Sweep Time	Auto

5.1.1 TEST PROCEDURE

- The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP

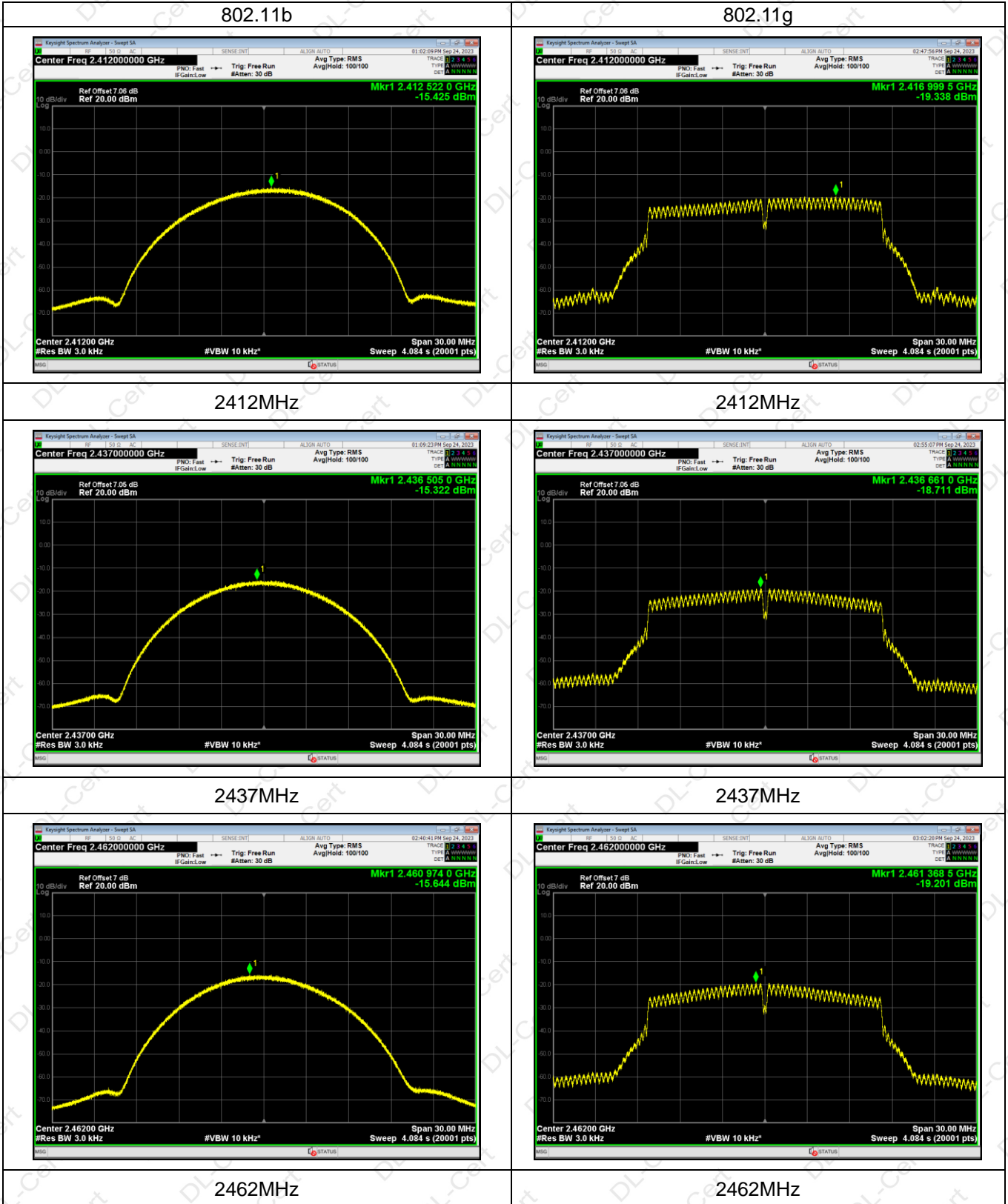


5.1.4 EUT OPERATION CONDITIONS

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

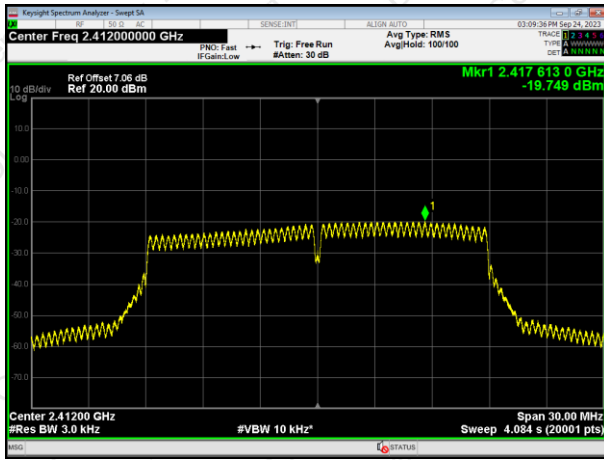
**5.1.5 TEST RESULTS**

Mode	Test Channel	Reading Level (dBm/3kHz)	Limit (dBm/3kHz)	Result
802.11b	Low	-15.425	8	PASS
	Middle	-15.322	8	PASS
	High	-15.644	8	PASS
802.11g	Low	-19.338	8	PASS
	Middle	-18.711	8	PASS
	High	-19.201	8	PASS
802.11n20	Low	-19.749	8	PASS
	Middle	-18.806	8	PASS
	High	-19.103	8	PASS
802.11n40	Low	-19.940	8	PASS
	Middle	-19.977	8	PASS
	High	-21.583	8	PASS

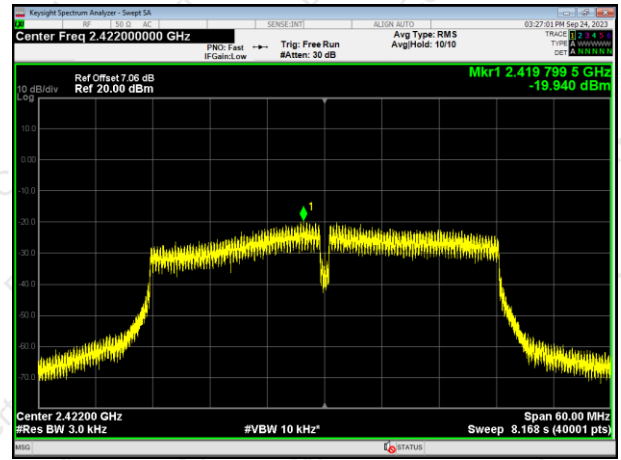




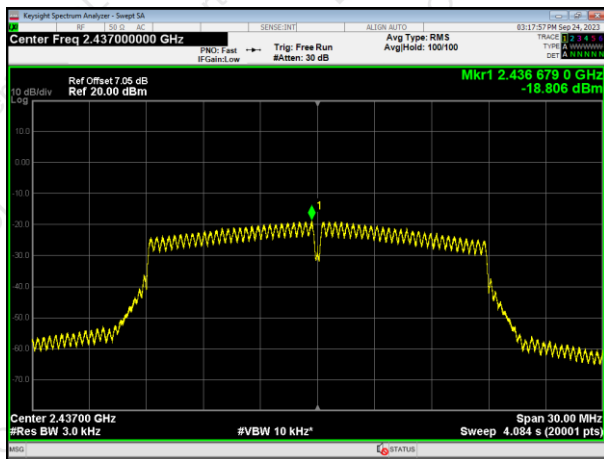
802.11n HT20



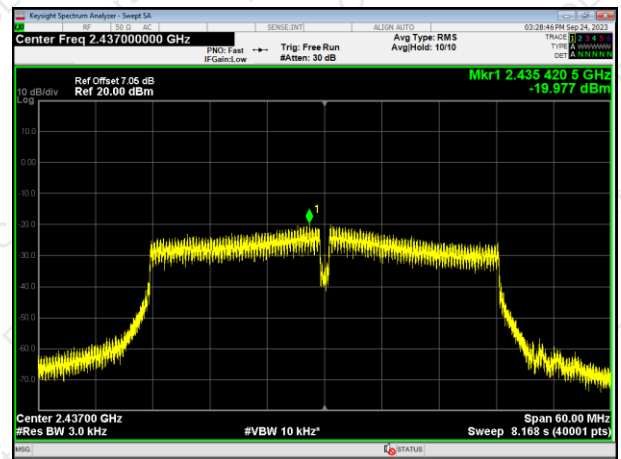
802.11n HT40



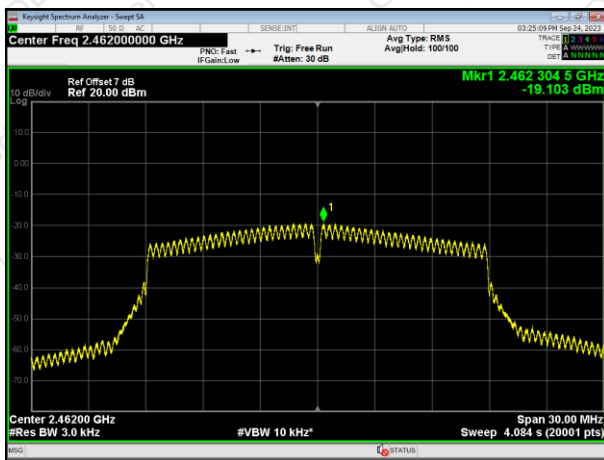
2412MHz



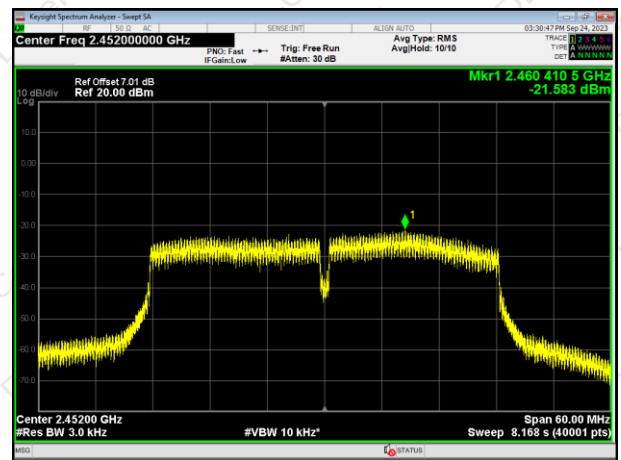
2422MHz



2437MHz



2437MHz



2462MHz

2452MHz



6. 6DB BANDWIDTH TEST

6.1 APPLIED PROCEDURES / LIMIT

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

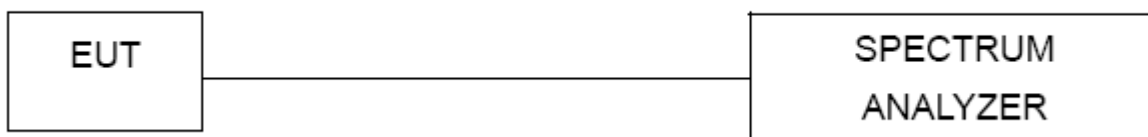
6.1.1 TEST PROCEDURE

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) \geq RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 20 dB relative to the maximum level measured in the fundamental emission.

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

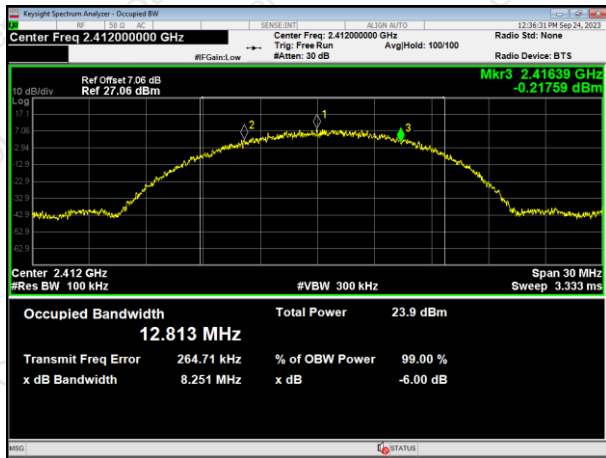
The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.

**6.1.5 TEST RESULTS**

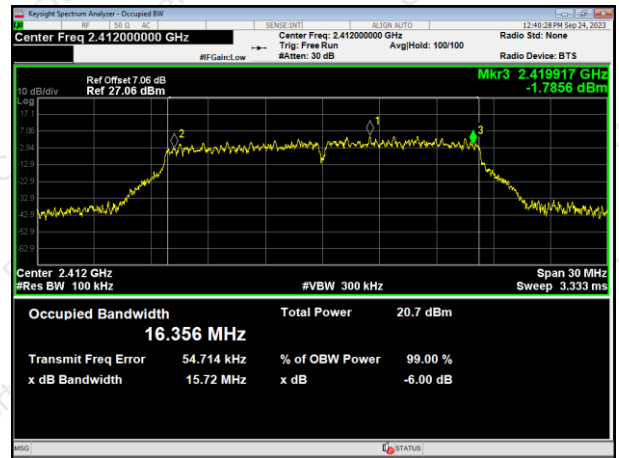
	Test Channel	6dB Bandwidth (MHz)	Limit (MHz)	Result
802.11b	Low	8.251	0.5	Pass
	Middle	7.650	0.5	Pass
	High	7.098	0.5	Pass
802.11g	Low	15.724	0.5	Pass
	Middle	15.084	0.5	Pass
	High	15.050	0.5	Pass
802.11n HT20	Low	15.050	0.5	Pass
	Middle	15.030	0.5	Pass
	High	15.075	0.5	Pass
802.11n HT40	Low	32.547	0.5	Pass
	Middle	28.839	0.5	Pass
	High	33.804	0.5	Pass



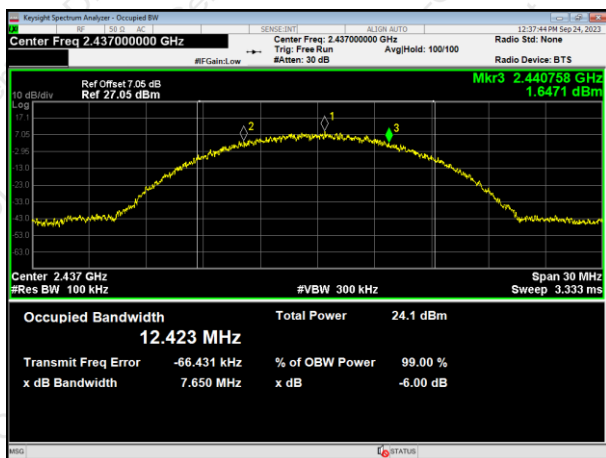
802.11b



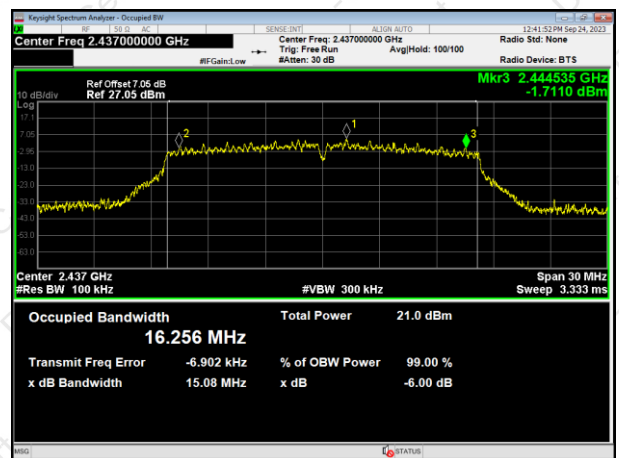
802.11g



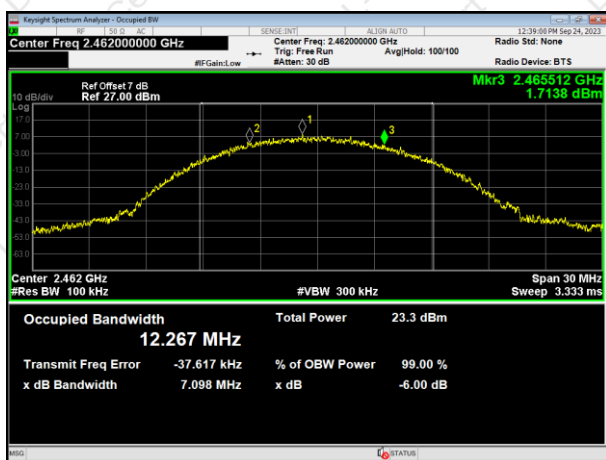
2412MHz



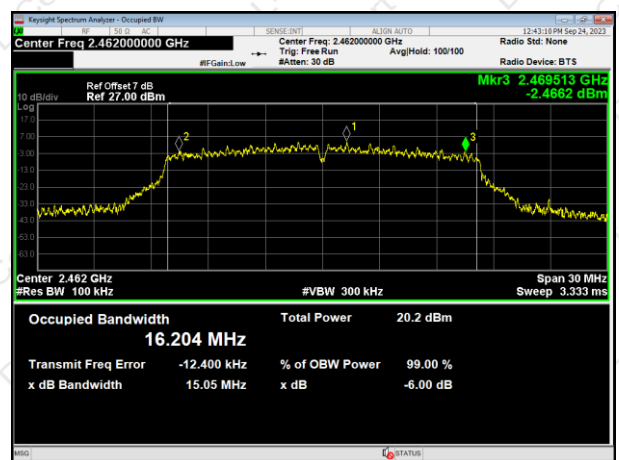
2412MHz



2437MHz



2437MHz

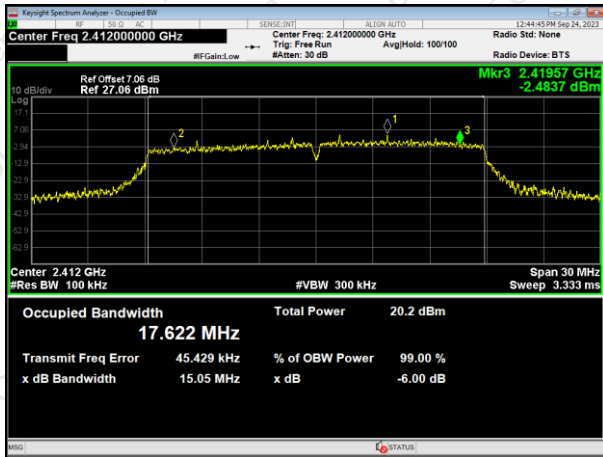


2462MHz

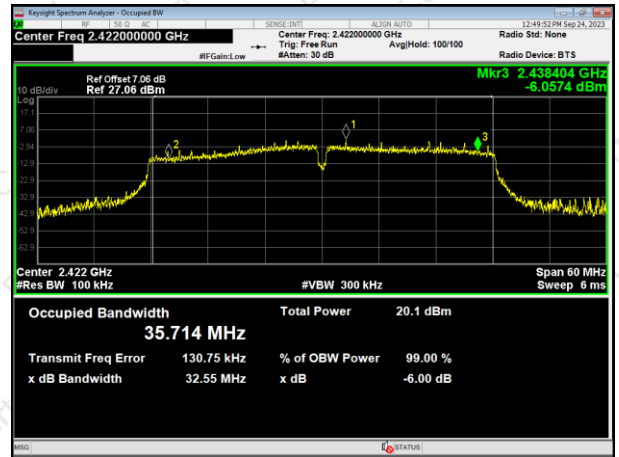
2462MHz



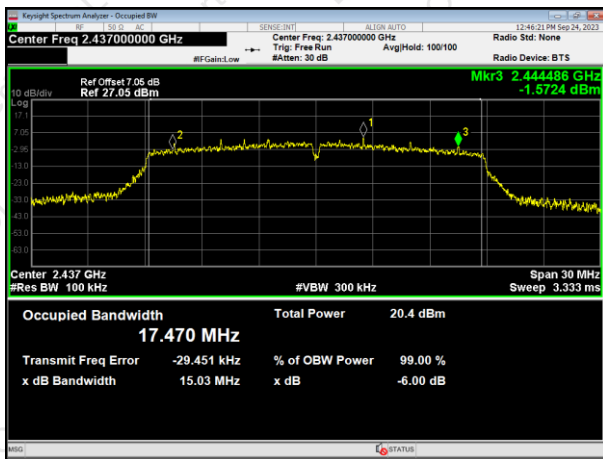
802.11n HT20



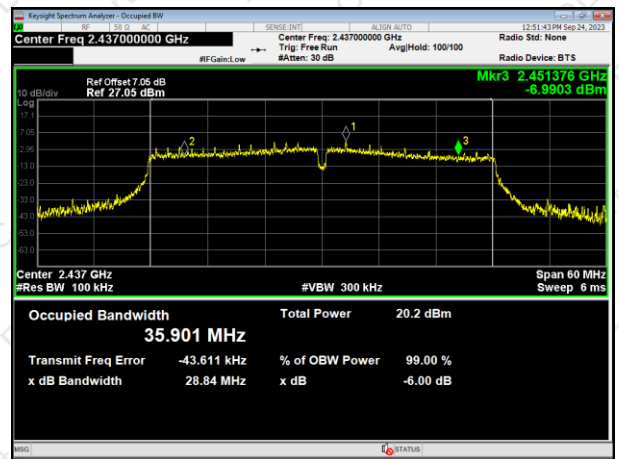
802.11n HT40



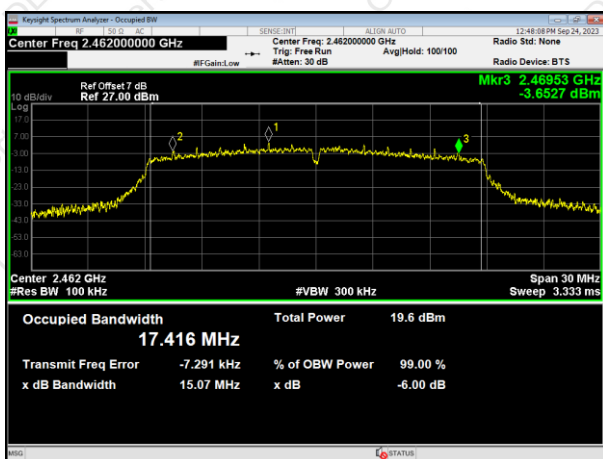
2412MHz



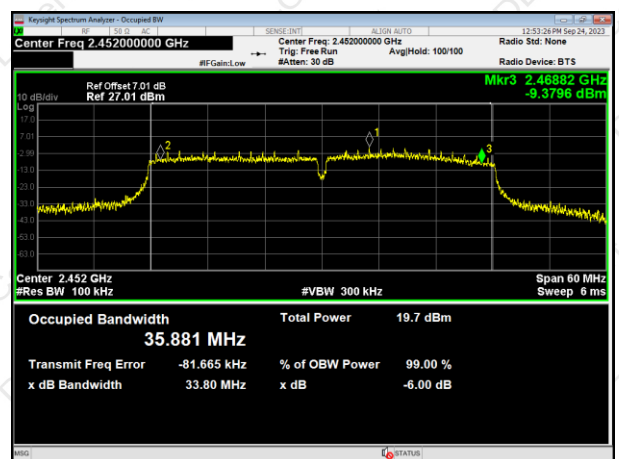
2422MHz



2437MHz



2437MHz



2462MHz

2452MHz



7. ANTENNA REQUIREMENT

7.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: 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.

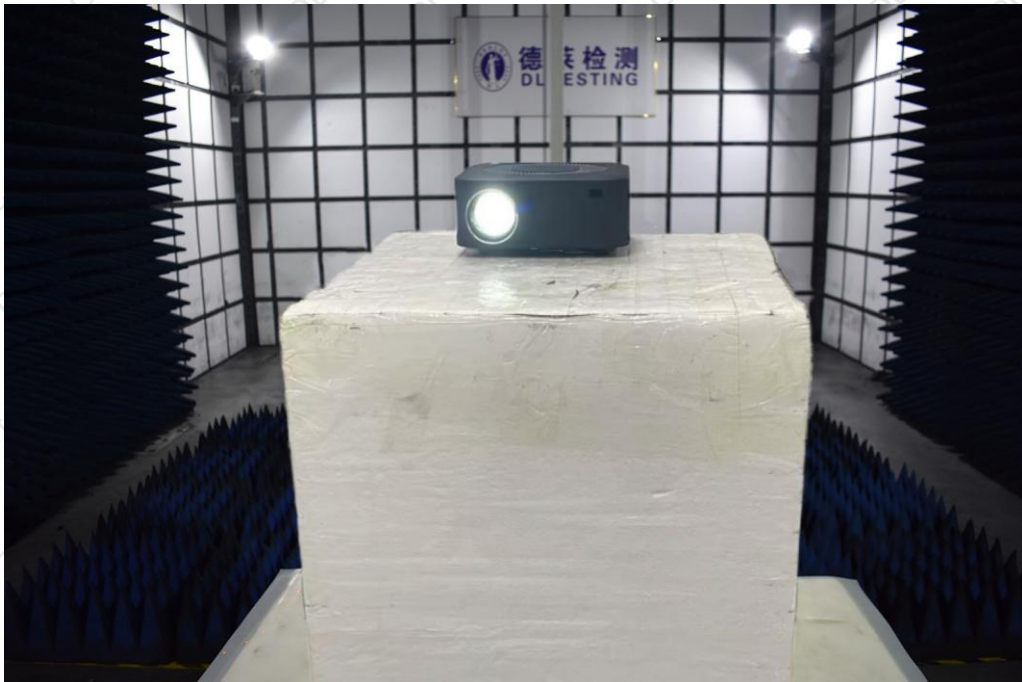
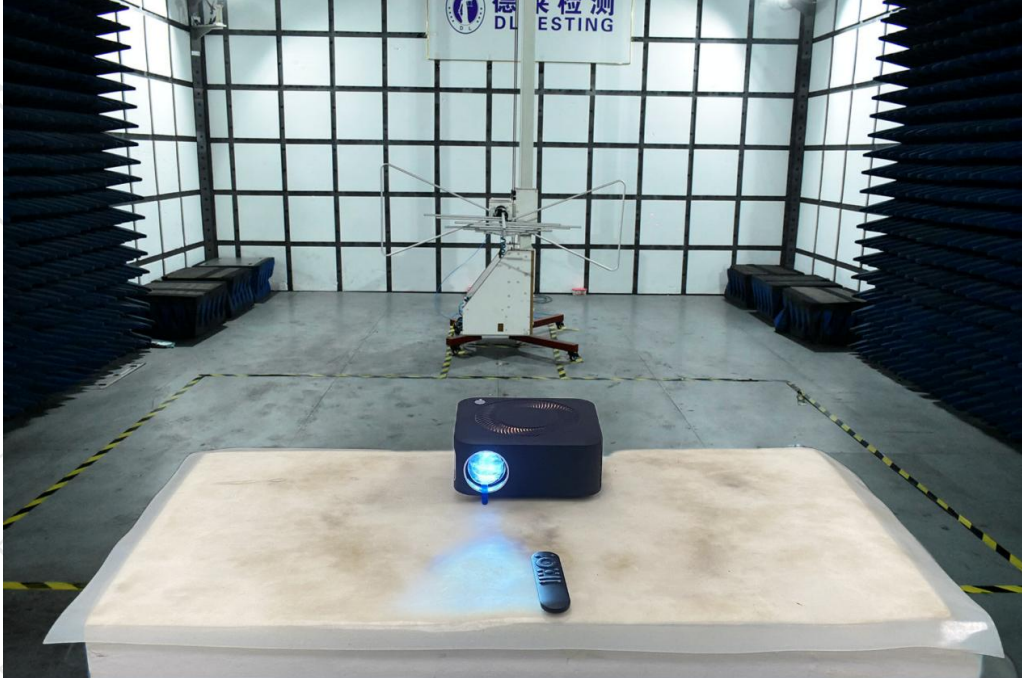
7.2 EUT ANTENNA

The EUT antenna is FPC antenna, It comply with the standard requirement.



8. TEST SEUUP PHOTO

Radiated Measurement Photos



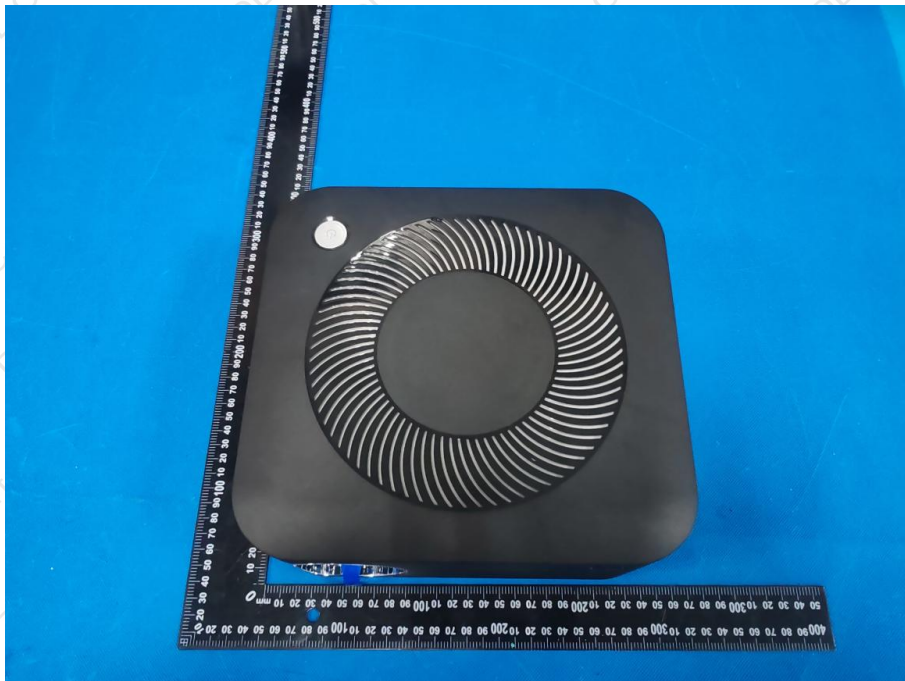


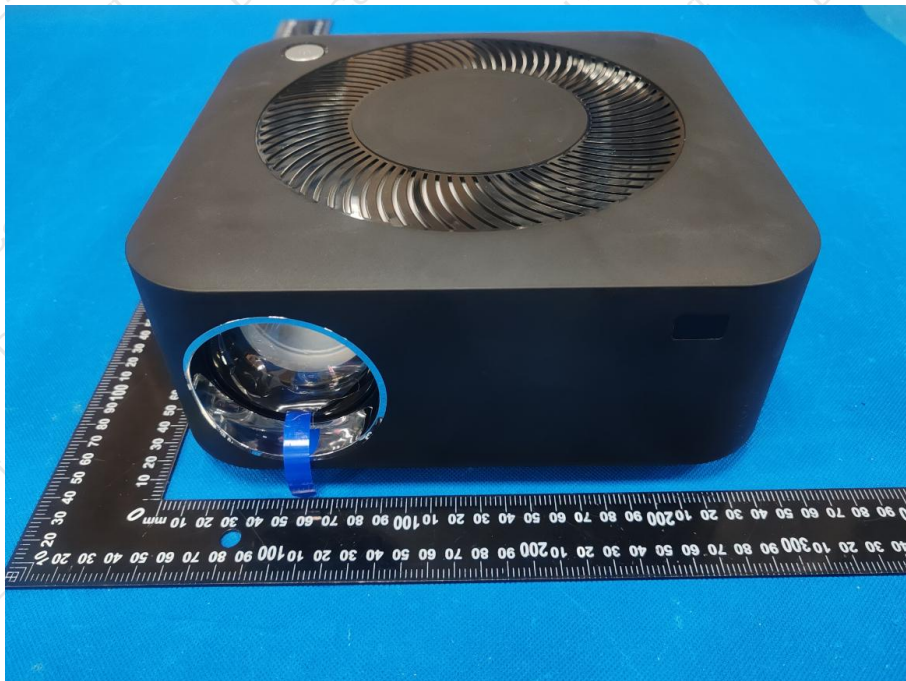
Conducted Measurement Photos



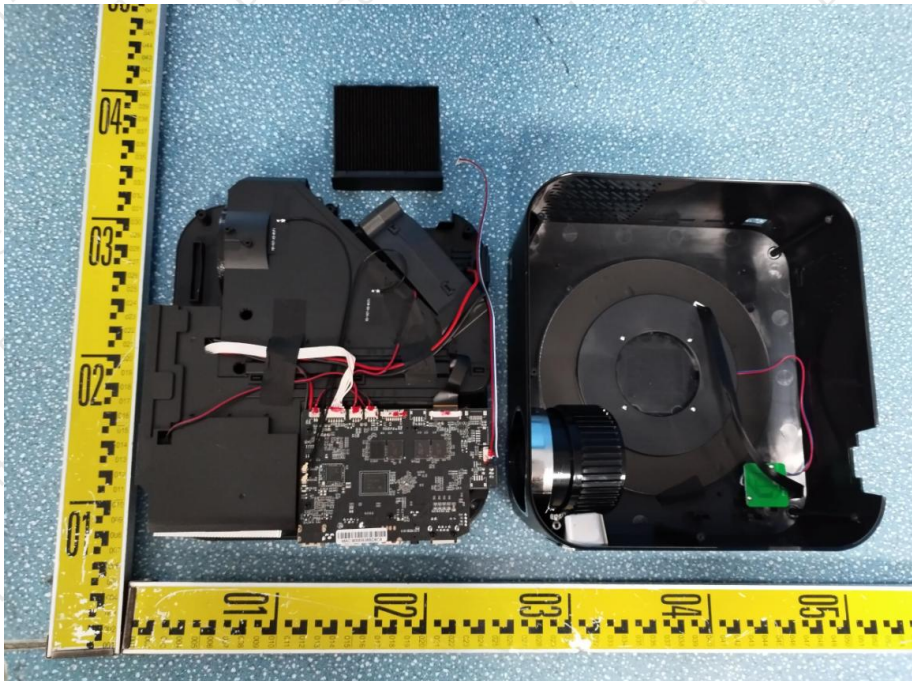


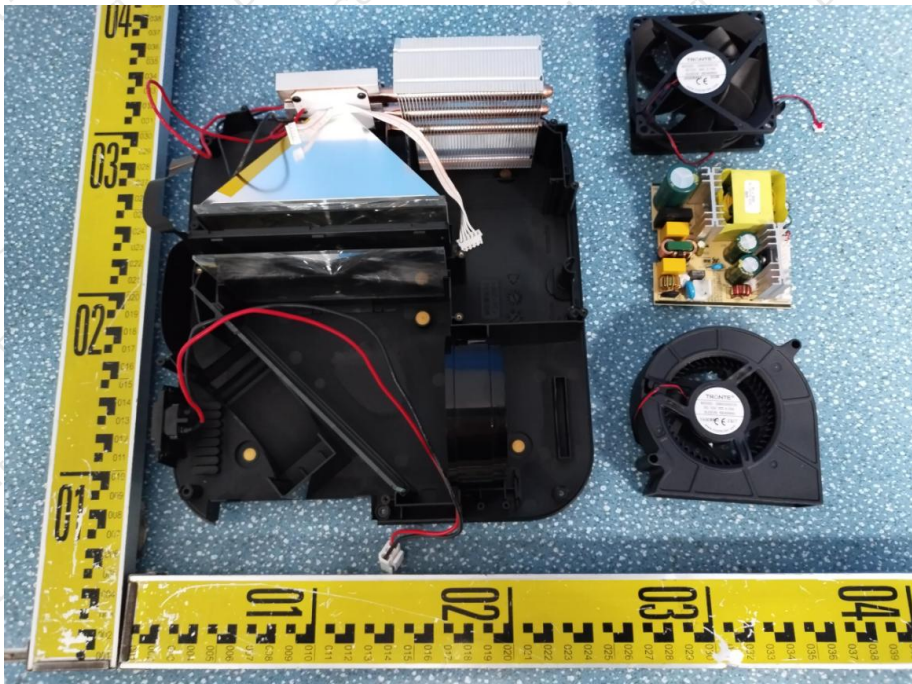
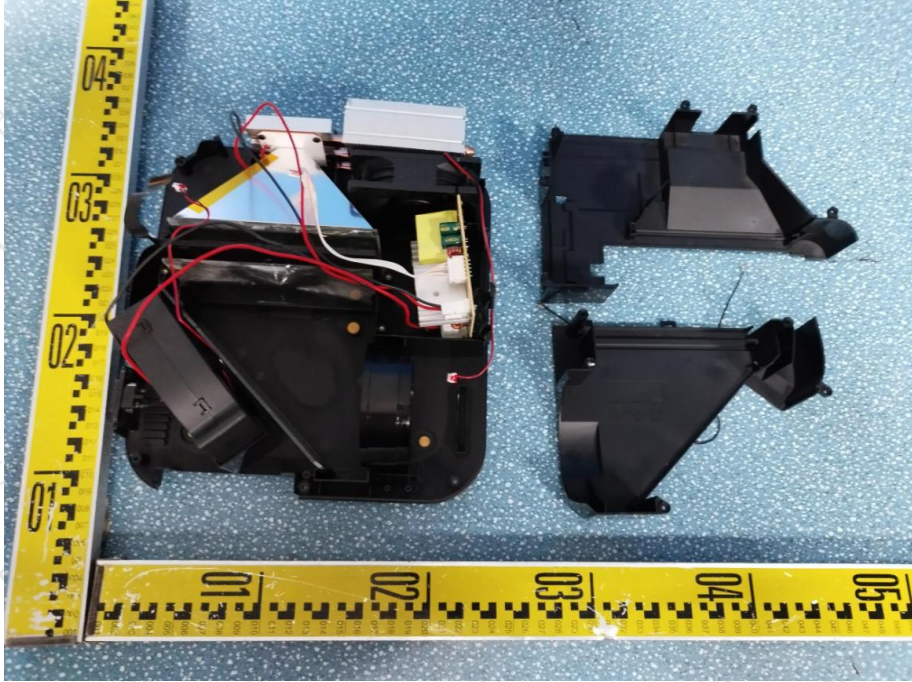
9. EUT PHOTO

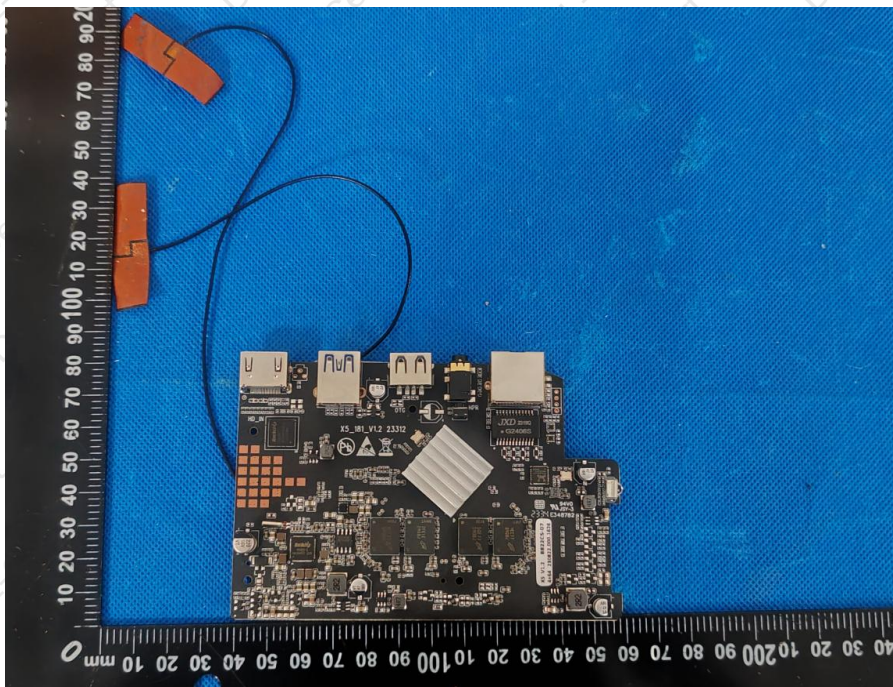
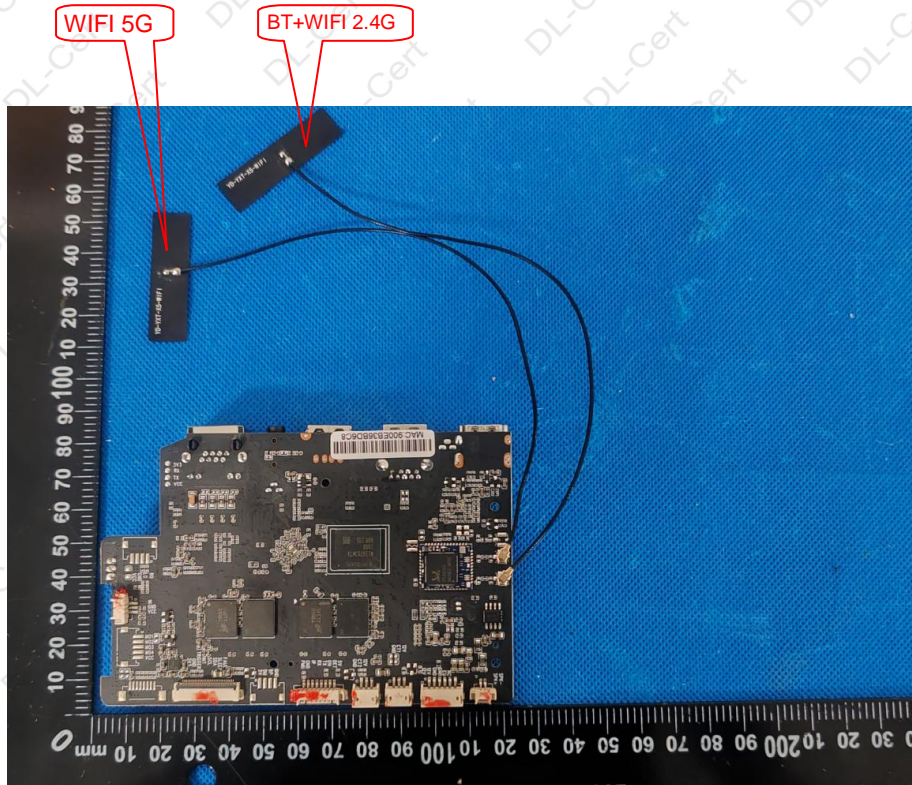


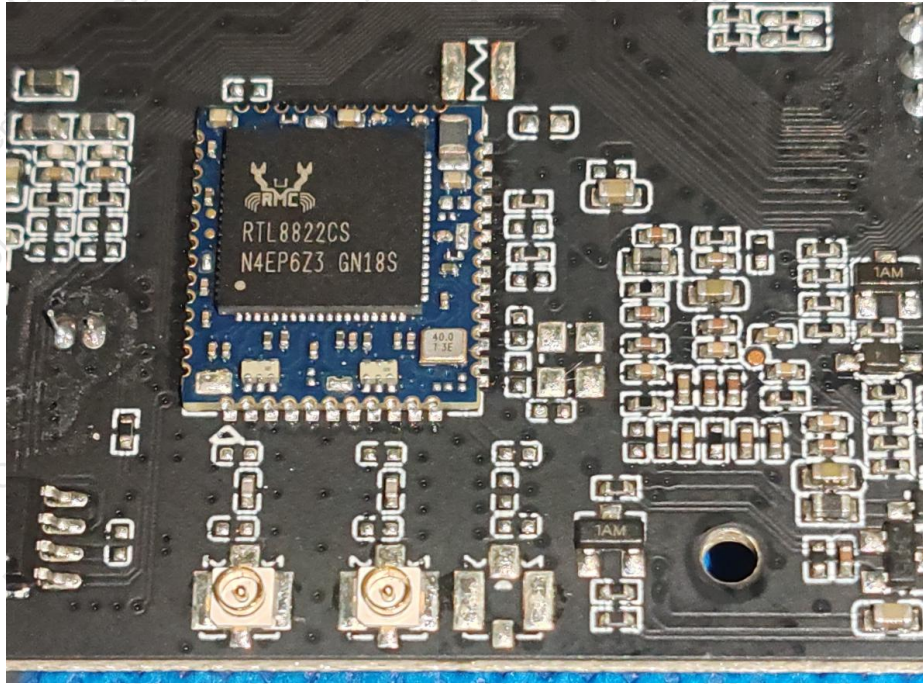












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