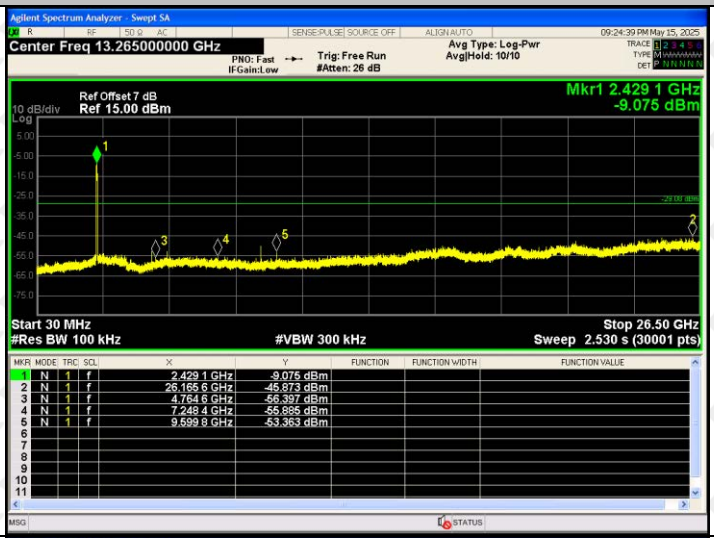
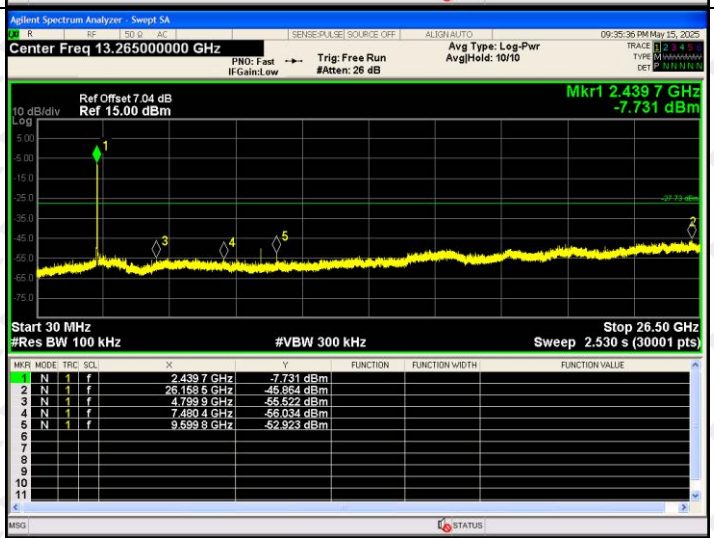
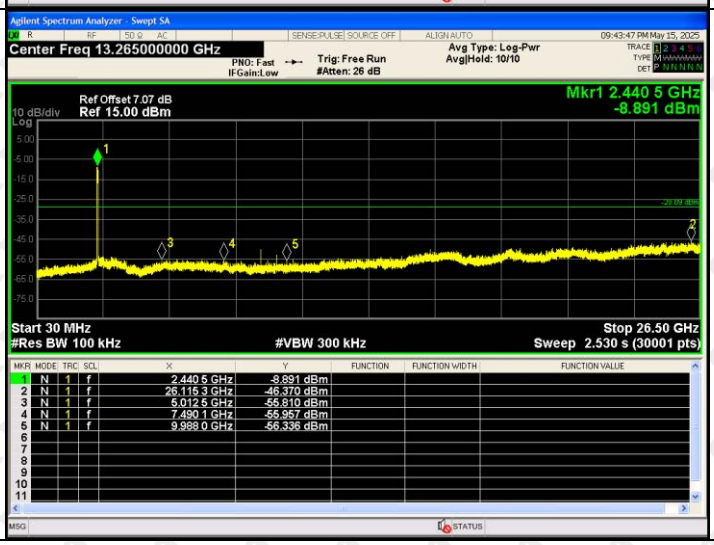
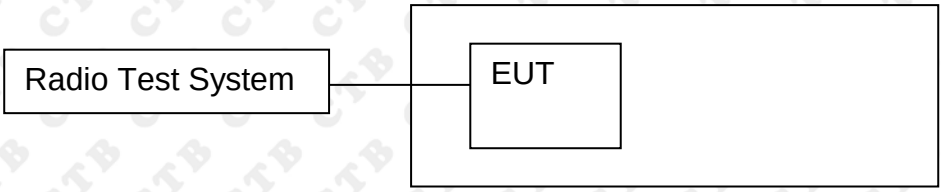
RF Conducted Spurious Emissions Graphs		
802.11ax(HT40)/LCH		
802.11 ax(HT40)/MCH		
802.11 ax(HT40)/HCH		

9. COUDUCTED OUTPUT POWER

9.1 Block Diagram Of Test Setup



9.2 Limit

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

9.3 Test procedure

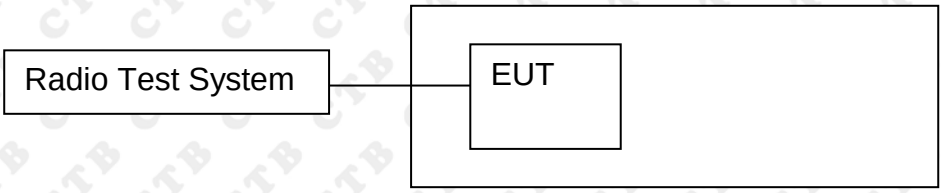
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1MHz. VBW = 3MHz. Sweep = auto; Detector Function = Peak. Channel power function is used
3. Keep the EUT in transmitting at lowest, middle and highest channel individually. Record the max value.

9.4 Test Result

Mode	Channel.	Maximum Peak Power [dBm] ant 1	Maximum Peak Power [dBm] ant 2	Total Power Peak Output Power(dBm)	Limit[dBm]
802.11b	LCH	14.923	15.638	/	30
	MCH	14.942	15.777	/	30
	HCH	14.37	15.296	/	30
802.11g	LCH	14.673	15.763	/	30
	MCH	14.968	16.027	/	30
	HCH	14.396	15.374	/	30
802.11n(HT20)	LCH	14.247	15.319	17.826	30
	MCH	14.479	15.514	18.038	30
	HCH	13.905	14.992	17.493	30
802.11n(HT40)	LCH	14.509	15.694	18.152	30
	MCH	14.585	15.821	18.257	30
	HCH	14.446	15.673	18.113	30
802.11ax(HT20)	LCH	14.148	15.244	17.741	30
	MCH	14.426	15.534	18.026	30
	HCH	13.78	14.963	17.422	30
802.11ax(HT40)	LCH	14.407	15.653	18.085	30
	MCH	14.571	15.792	18.235	30
	HCH	14.441	15.628	18.085	30

10. 6DB OCCUPIED BANDWIDTH

10.1 Block Diagram Of Test Setup



10.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

10.3 Test procedure

1. Rem1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

10.4 Test Result

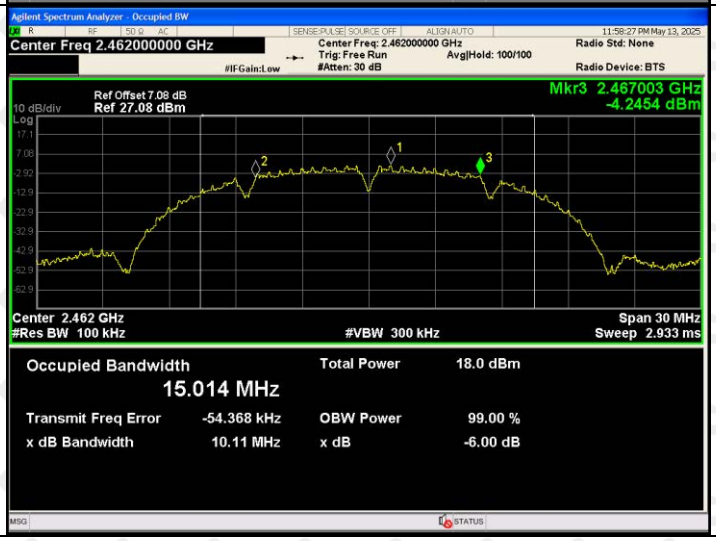
ANT1:

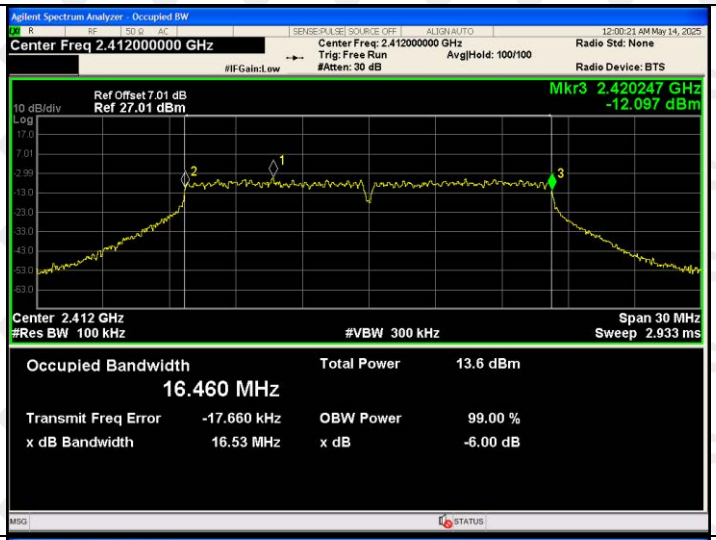
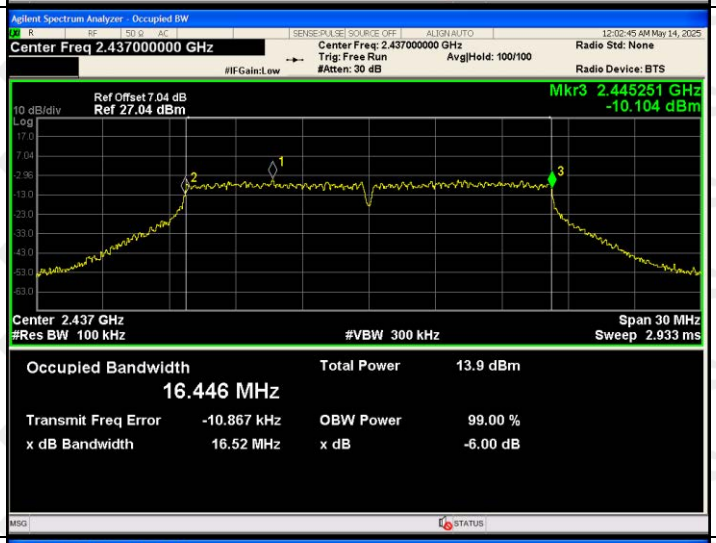
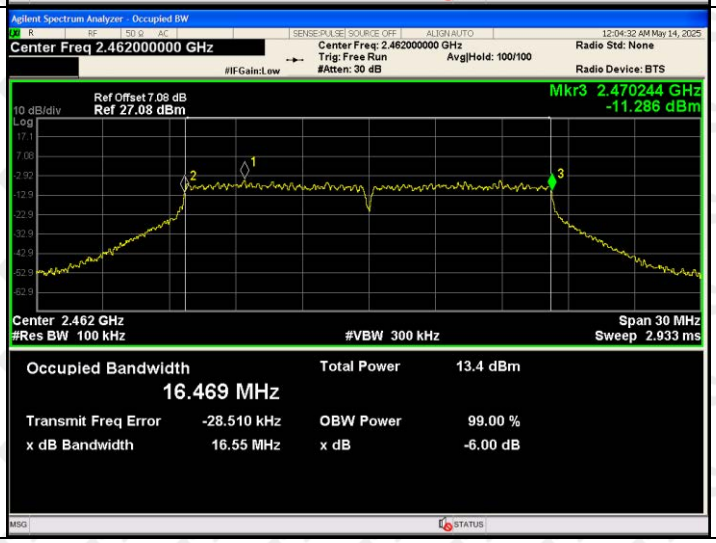
Test Mode	Frequency	6dB Bandwidth (MHz)	Limit(kHz)	Result
802.11b	LCH	10.127	500	**PASS**
	MCH	10.135	500	**PASS**
	HCH	10.115	500	**PASS**
802.11g	LCH	16.53	500	**PASS**
	MCH	16.524	500	**PASS**
	HCH	16.546	500	**PASS**
802.11n(HT20)	LCH	17.749	500	**PASS**
	MCH	17.776	500	**PASS**
	HCH	17.74	500	**PASS**
802.11n(HT40)	LCH	36.467	500	**PASS**
	MCH	36.456	500	**PASS**
	HCH	36.472	500	**PASS**
802.11ax(HT20)	LCH	17.78	500	**PASS**
	MCH	17.773	500	**PASS**
	HCH	17.752	500	**PASS**
802.11ax(HT40)	LCH	36.491	500	**PASS**
	MCH	36.472	500	**PASS**
	HCH	36.485	500	**PASS**

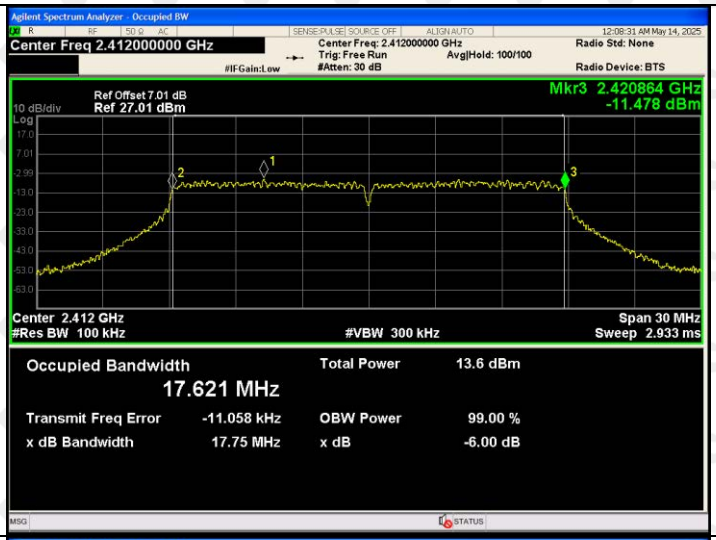
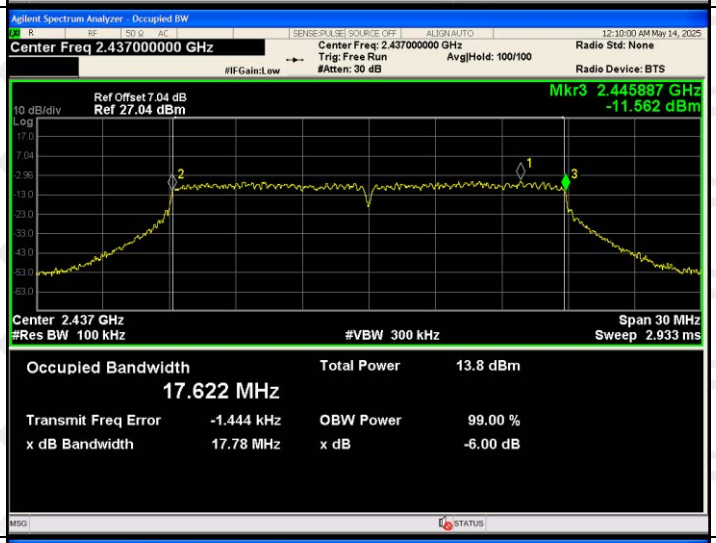
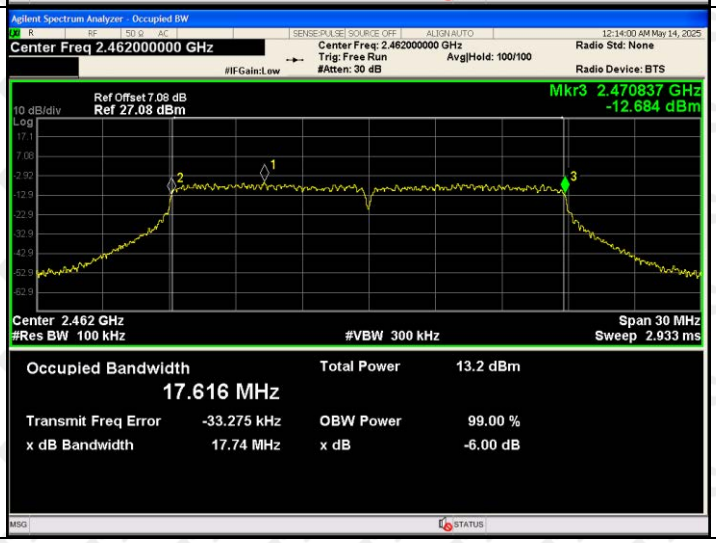
ANT2:

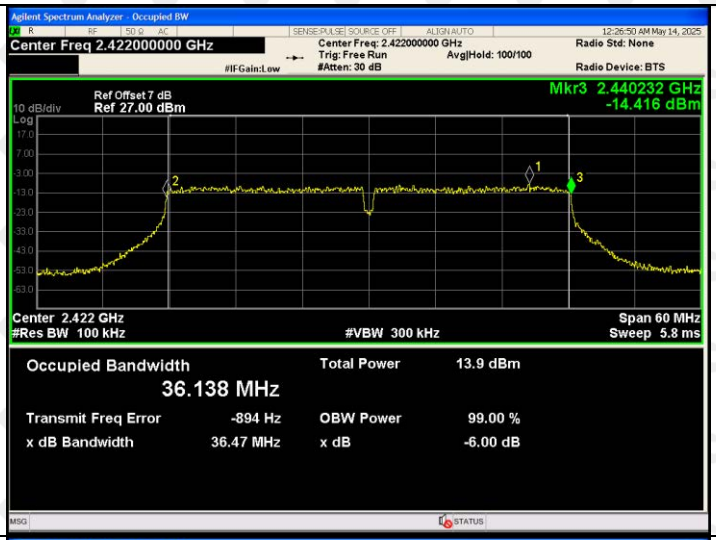
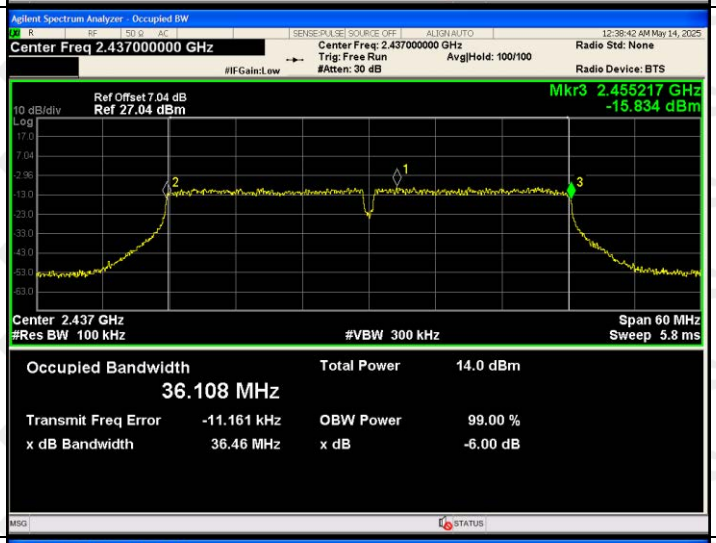
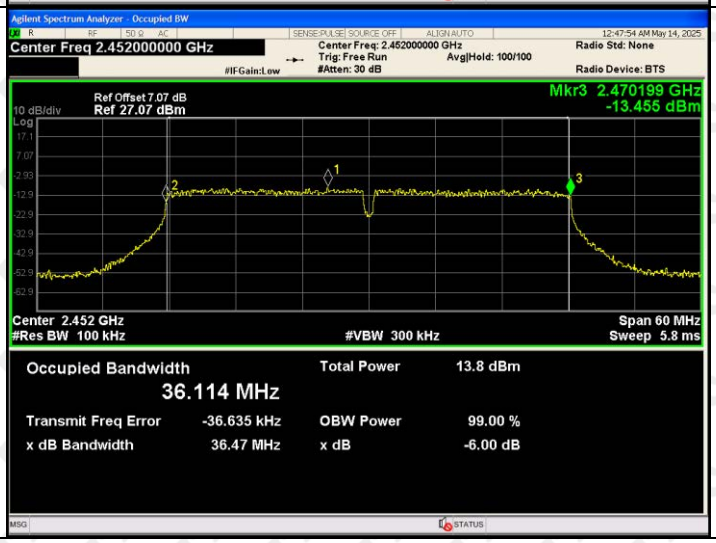
Test Mode	Frequency	6dB Bandwidth (MHz)	Limit(kHz)	Result
802.11b	LCH	10.13	500	**PASS**
	MCH	10.13	500	**PASS**
	HCH	10.133	500	**PASS**
802.11g	LCH	16.505	500	**PASS**
	MCH	16.539	500	**PASS**
	HCH	16.522	500	**PASS**
802.11n(HT20)	LCH	17.787	500	**PASS**
	MCH	17.743	500	**PASS**
	HCH	17.752	500	**PASS**
802.11n(HT40)	LCH	36.456	500	**PASS**
	MCH	36.479	500	**PASS**
	HCH	36.462	500	**PASS**
802.11ax(HT20)	LCH	17.801	500	**PASS**
	MCH	17.793	500	**PASS**
	HCH	17.803	500	**PASS**
802.11ax(HT40)	LCH	36.474	500	**PASS**
	MCH	36.458	500	**PASS**
	HCH	36.483	500	**PASS**

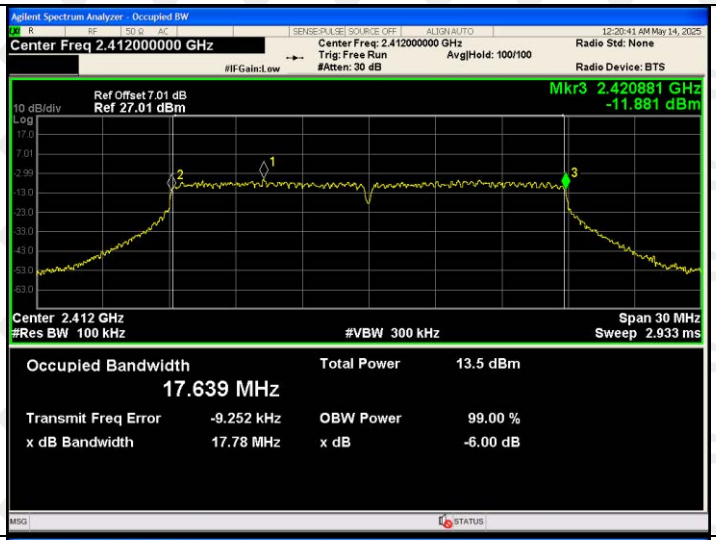
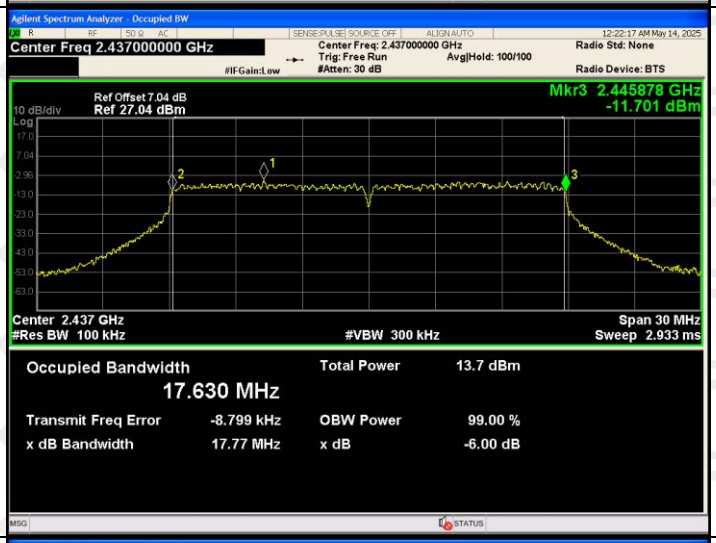
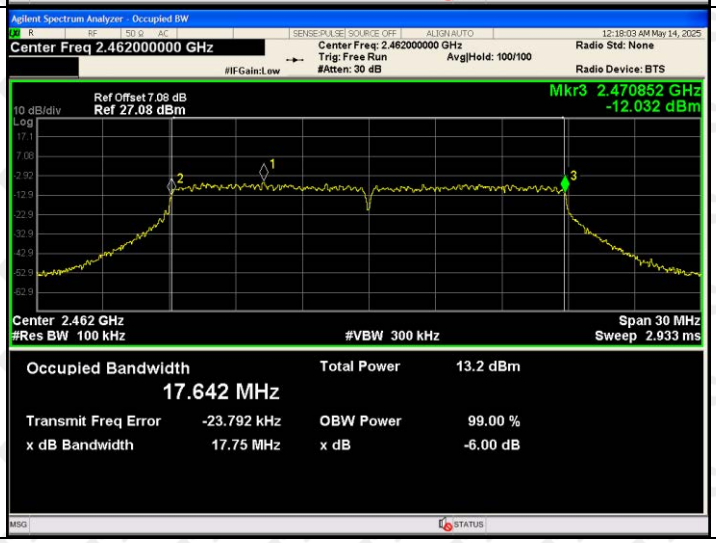
ANT1:
Test Graph:

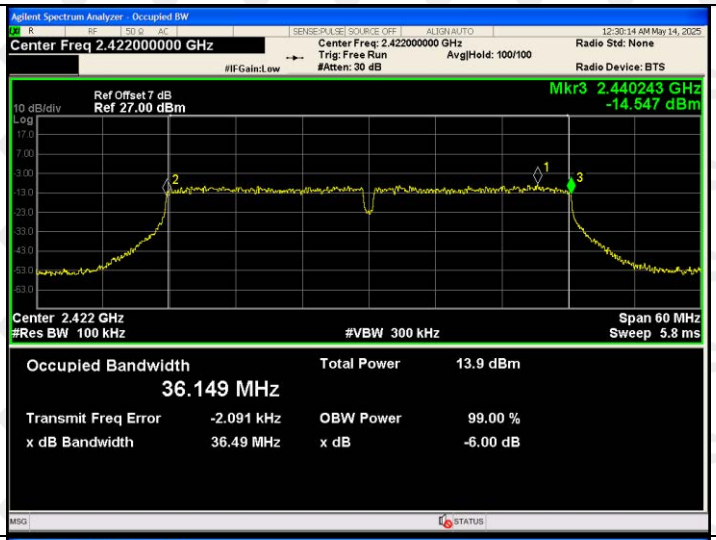
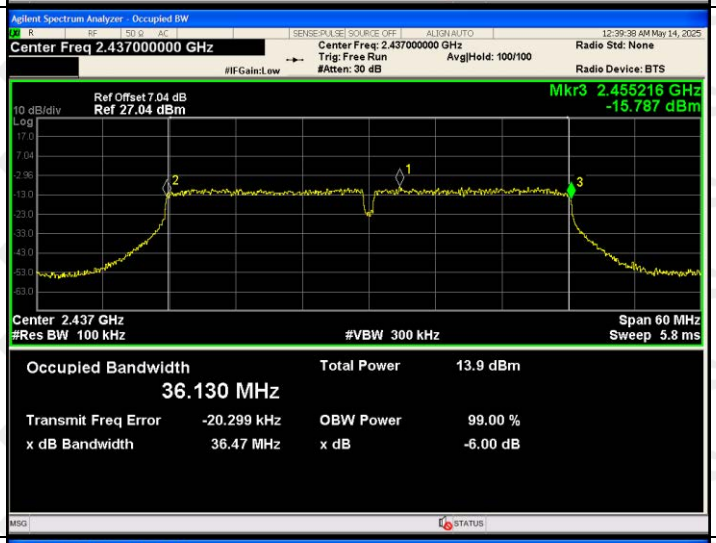
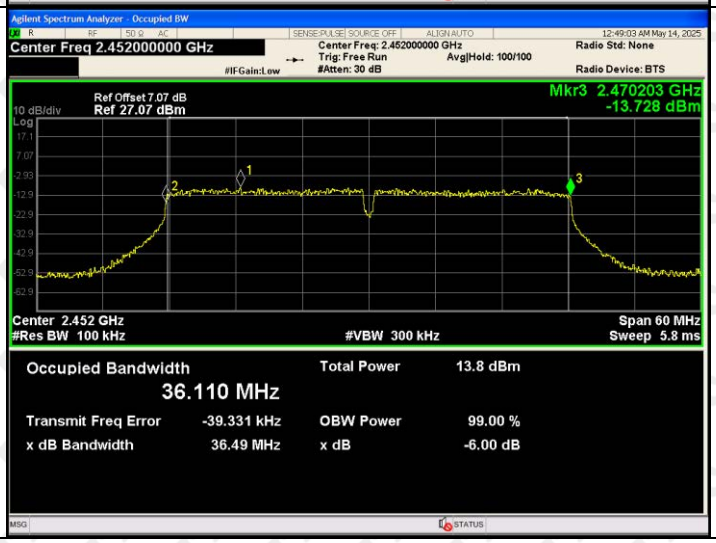
Graphs		
802.11b /LCH		
802.11b /MCH		
802.11b/HCH		

802.11g/LCH			
802.11g/MCH			
802.11g/HCH			

802.11n(HT20)/LCH			
802.11n(HT20)/MCH			
802.11n(HT20)/HCH			

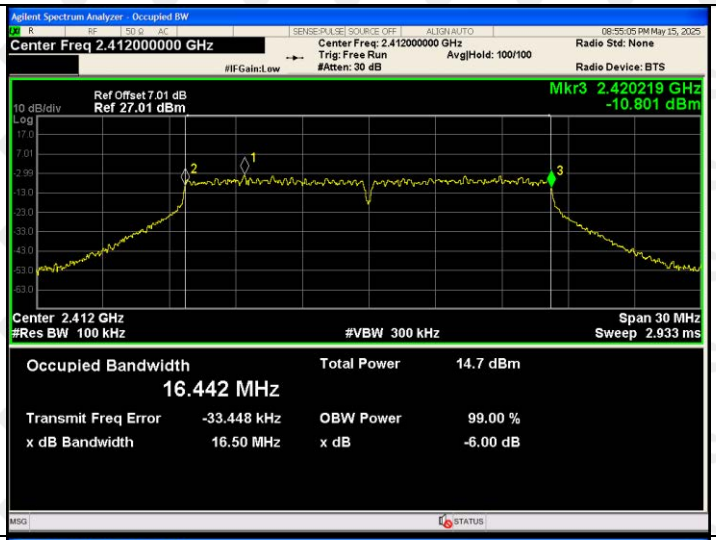
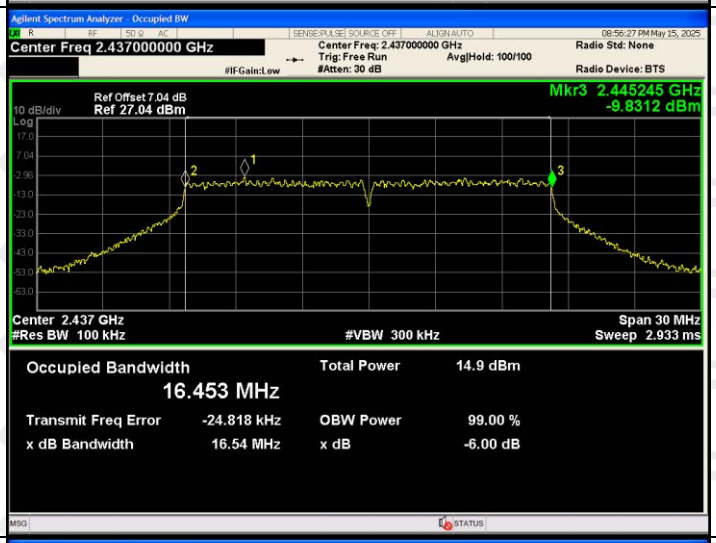
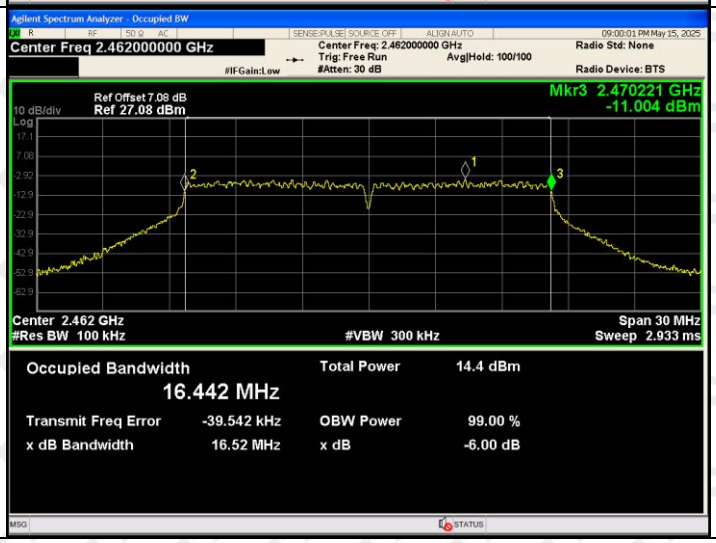
802.11n(HT40)/LCH		
802.11n(HT40)/MCH		
802.11n(HT40)/HCH		

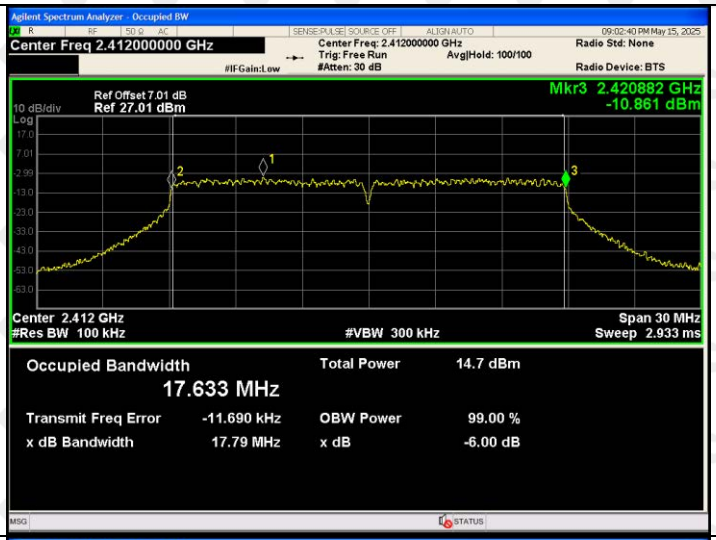
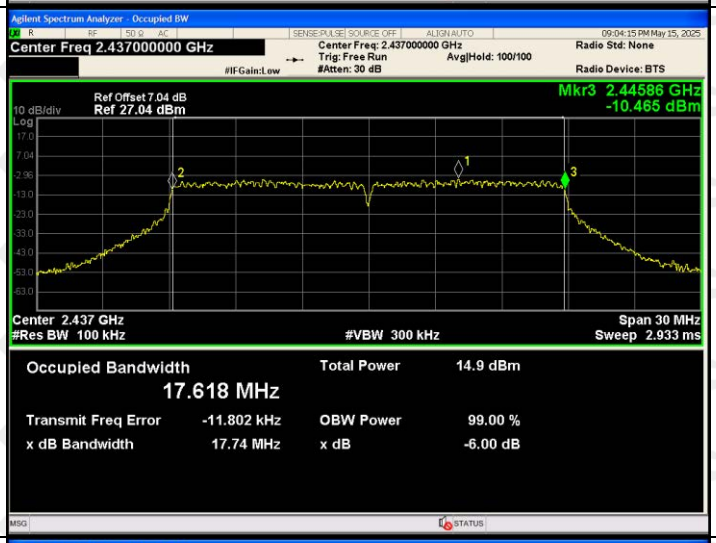
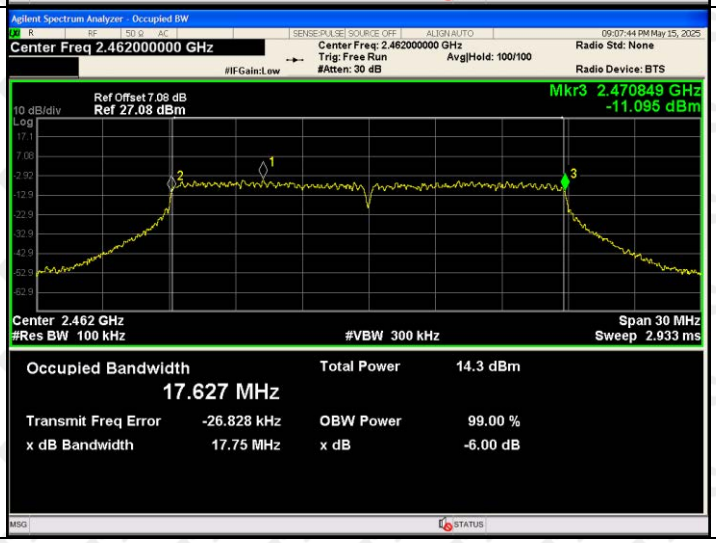
802.11ax(HT20)/LCH			
802.11ax(HT20)/MCH			
802.11ax(HT20)/HCH			

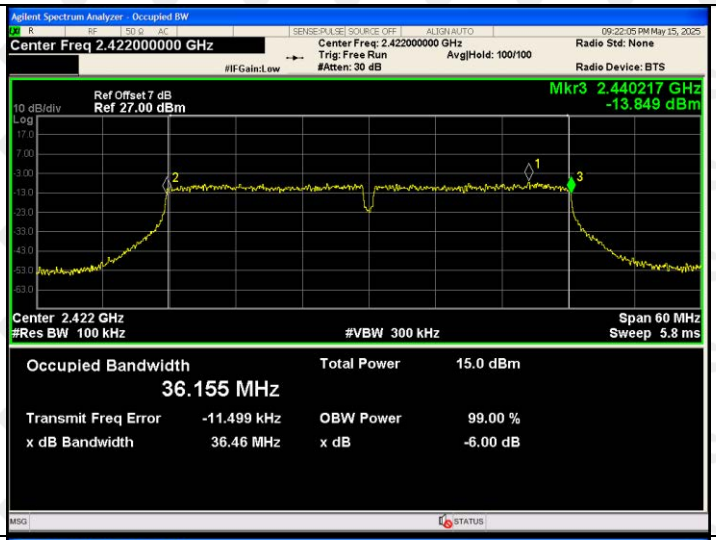
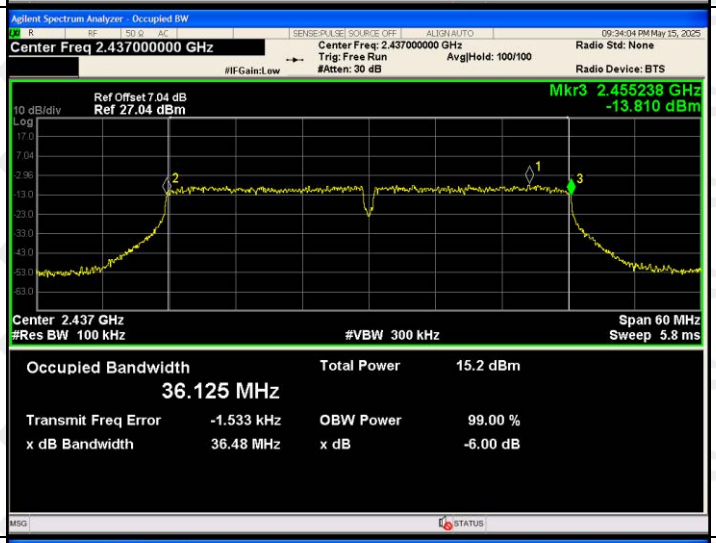
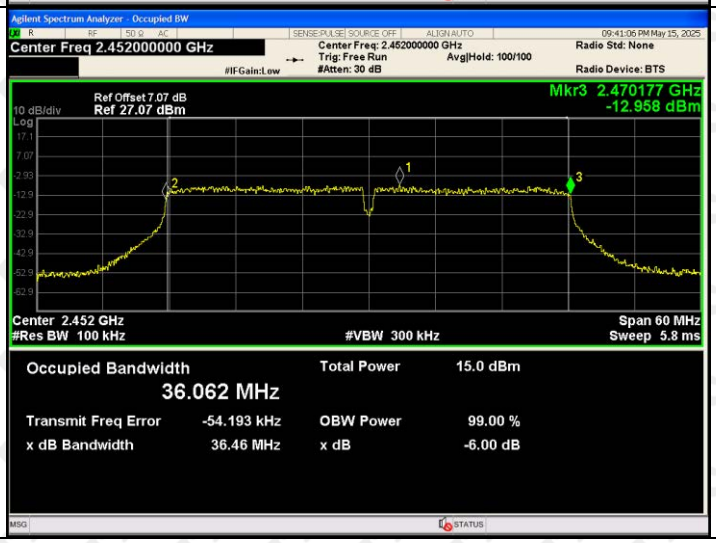
802.11ax(HT40)/LCH			
802.11ax(HT40)/MCH			
802.11ax(HT40)/HCH			

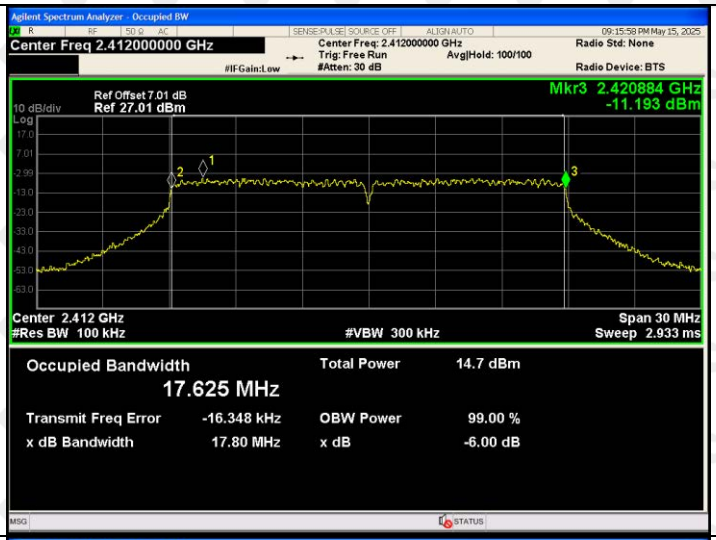
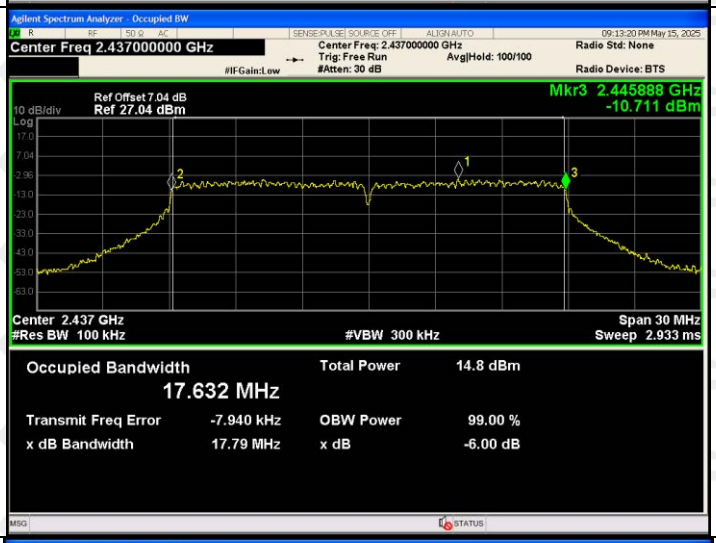
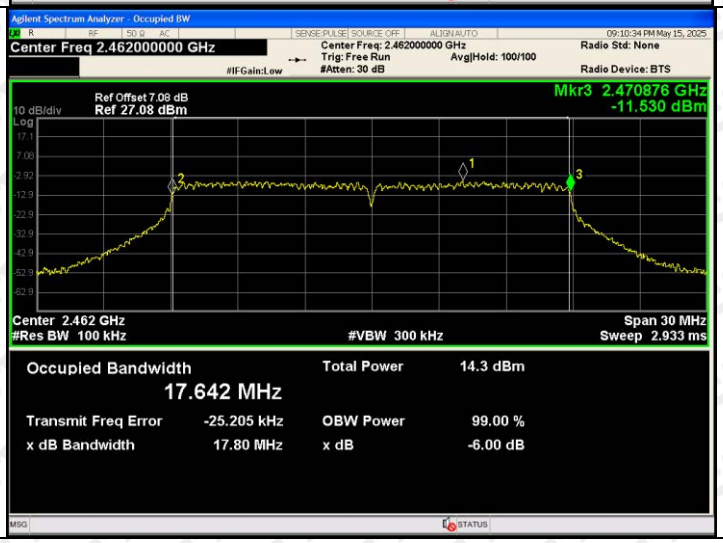
ANT2:
Test Graph:

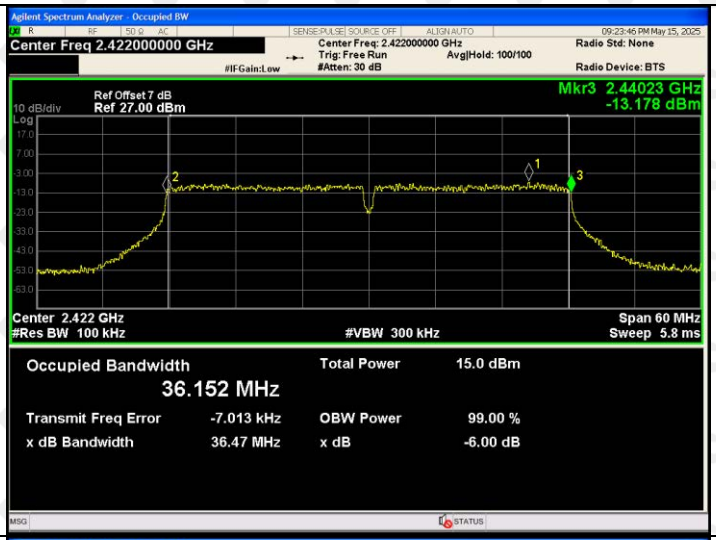
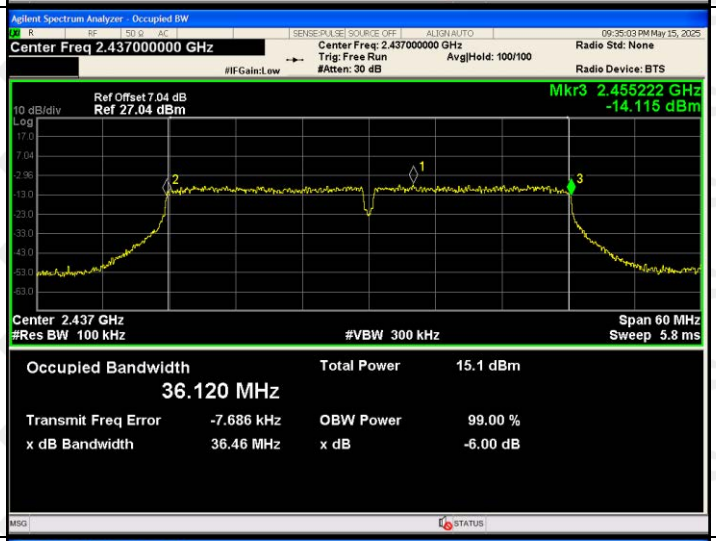
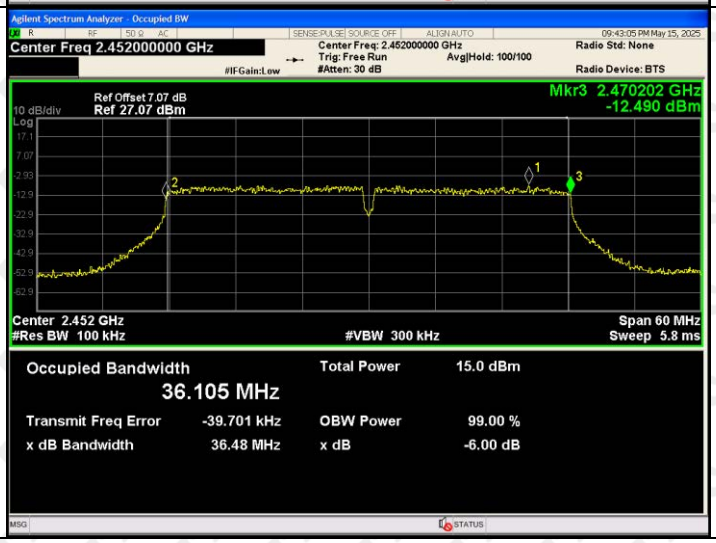
Graphs		
802.11b /LCH		
802.11b /MCH		
802.11b/HCH		

802.11g/LCH		
802.11g/MCH		
802.11g/HCH		

802.11n(HT20)/LCH			
802.11n(HT20)/MCH			
802.11n(HT20)/HCH			

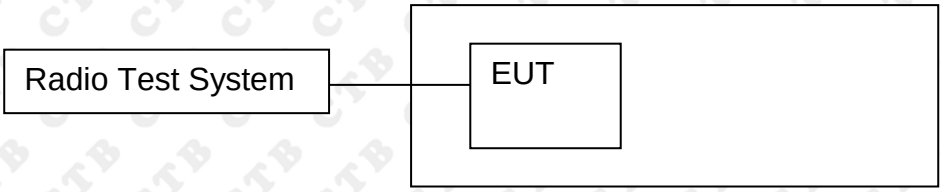
802.11n(HT40)/LCH			
802.11n(HT40)/MCH			
802.11n(HT40)/HCH			

802.11ax(HT20)/LCH			
802.11ax(HT20)/MCH			
802.11ax(HT20)/HCH			

802.11ax(HT40)/LCH		
802.11ax(HT40)/MCH		
802.11ax(HT40)/HCH		

11. POWER SPECTRAL DENSITY

11.1 Block Diagram Of Test Setup



11.2 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

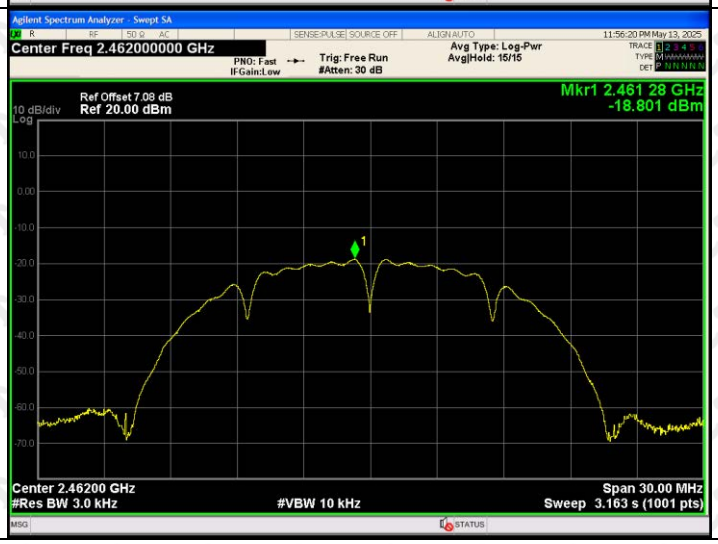
11.3 Test procedure

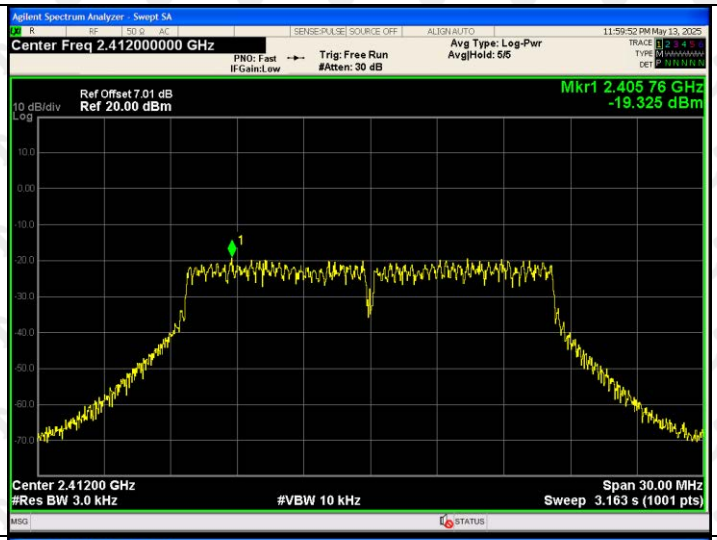
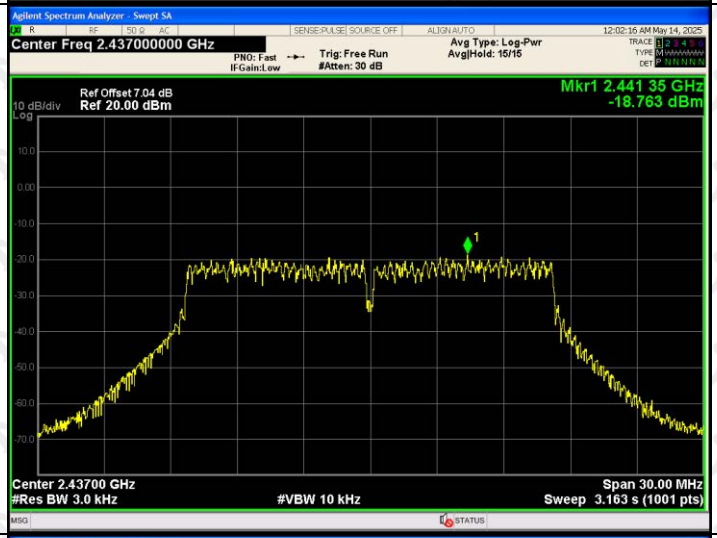
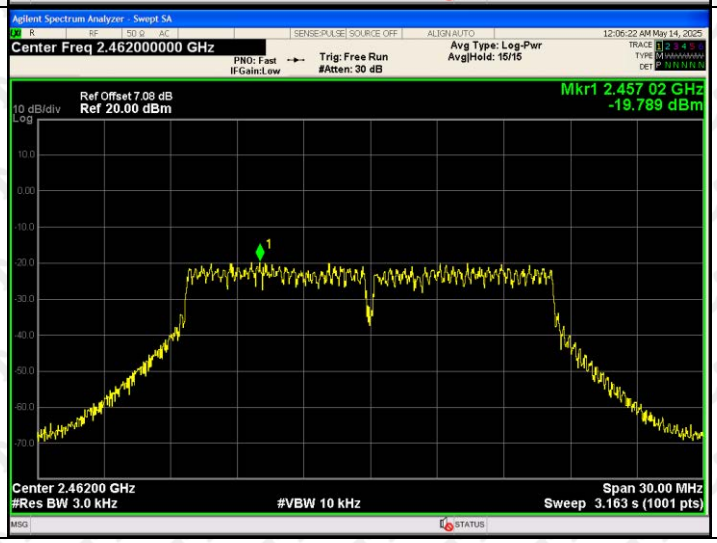
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = Peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the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

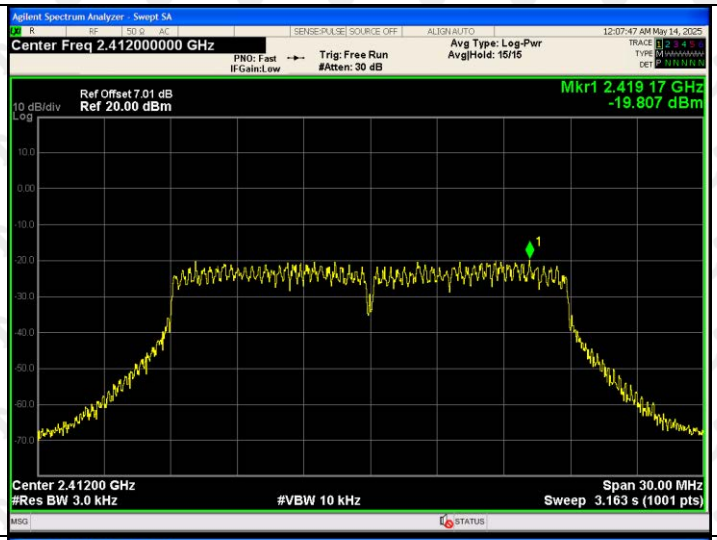
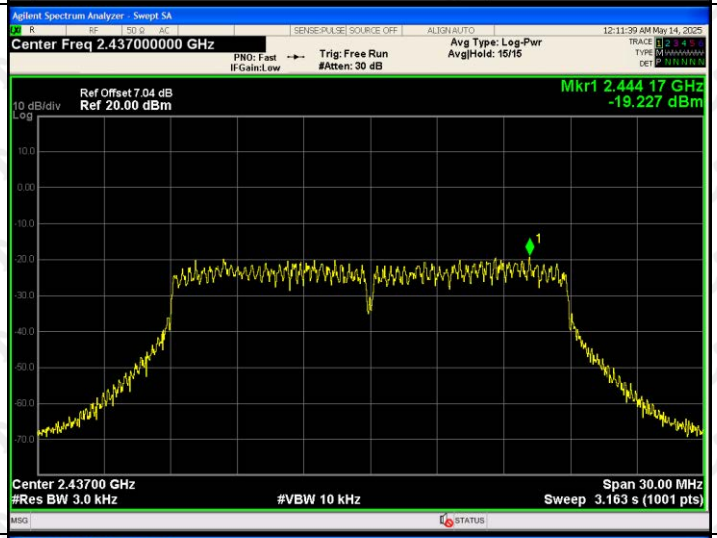
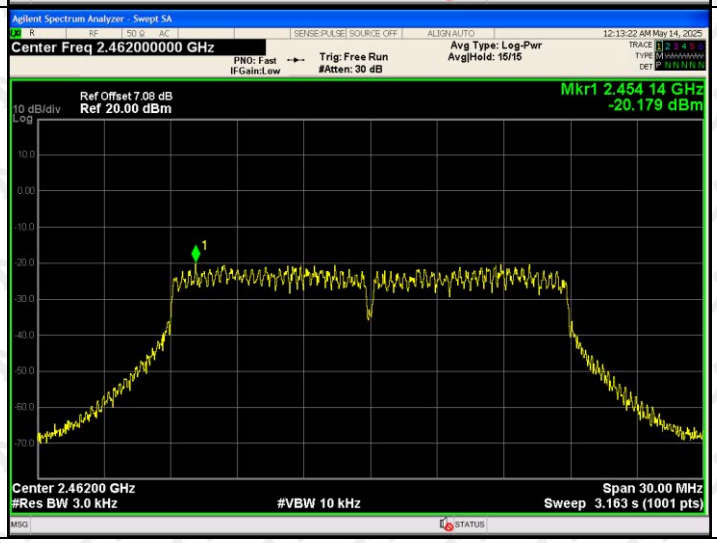
11.4 Test Result

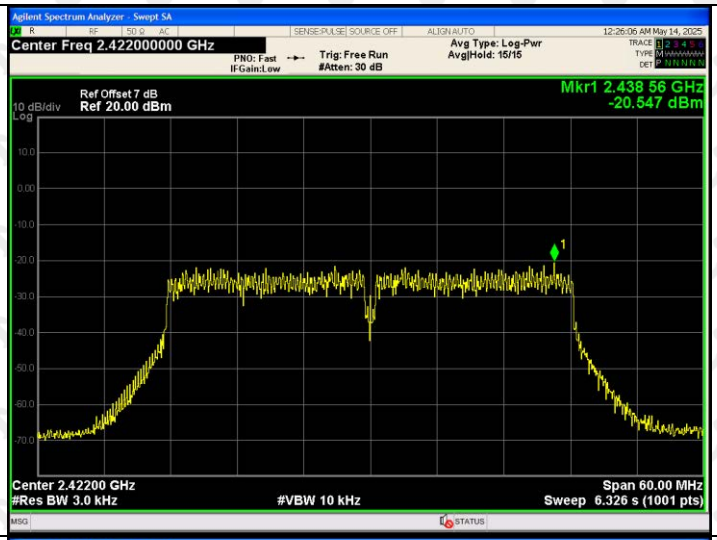
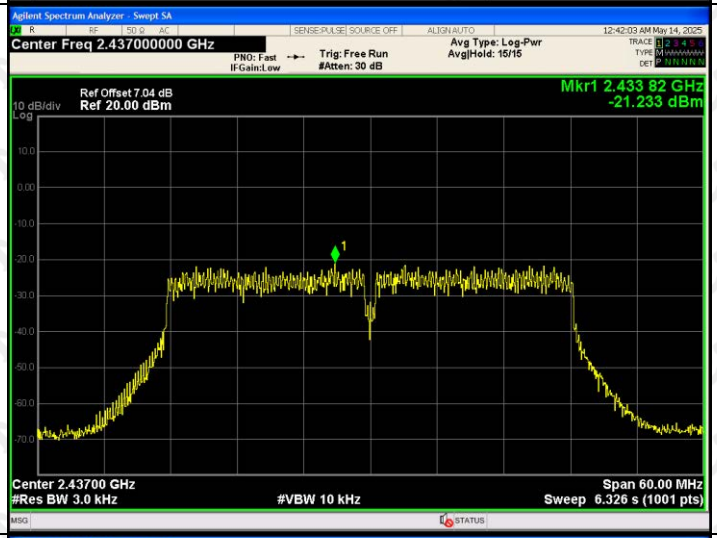
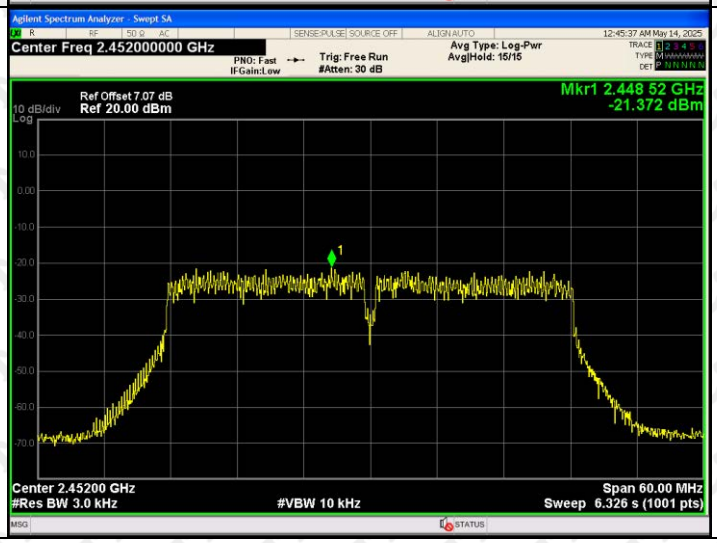
Mode	Channel.	Power Spectral Density [dBm /3kHz] ANT 1	Power Spectral Density [dBm /3kHz]] ANT 2	Power Spectral Density [dBm /3kHz]Total	Limit(dBm)
802.11b	LCH	-18.186	-17.522	/	8
	MCH	-18.24	-17.472	/	8
	HCH	-18.801	-18.093	/	8
802.11g	LCH	-19.325	-18.177	/	8
	MCH	-18.763	-18.019	/	8
	HCH	-19.789	-17.99	/	8
802.11n(HT20)	LCH	-19.807	-18.893	-16.316	8
	MCH	-19.227	-18.056	-15.592	8
	HCH	-20.179	-18.953	-16.513	8
802.11n(HT40)	LCH	-20.547	-20.148	-17.333	8
	MCH	-21.233	-20.412	-17.793	8
	HCH	-21.372	-19.735	-17.467	8
802.11ax(HT20)	LCH	-19.966	-18.807	-16.338	8
	MCH	-19.454	-18.393	-15.881	8
	HCH	-20.189	-19.019	-16.554	8
802.11ax(HT40)	LCH	-21.411	-20.154	-17.727	8
	MCH	-21.471	-20.378	-17.880	8
	HCH	-21.393	-19.751	-17.485	8

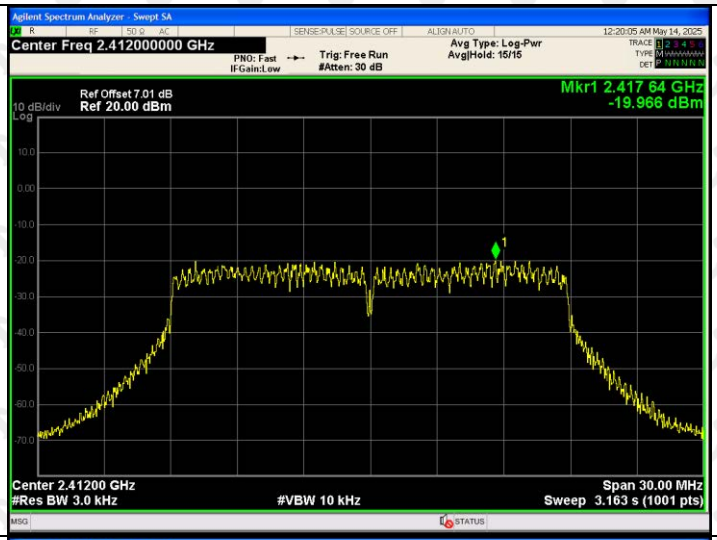
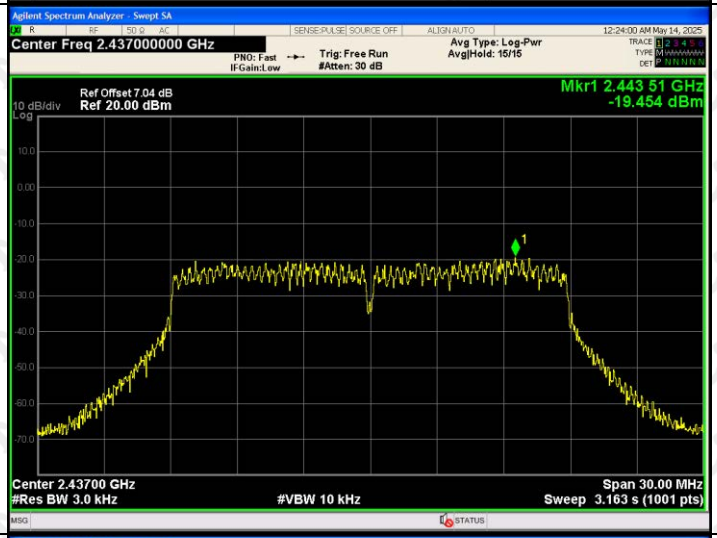
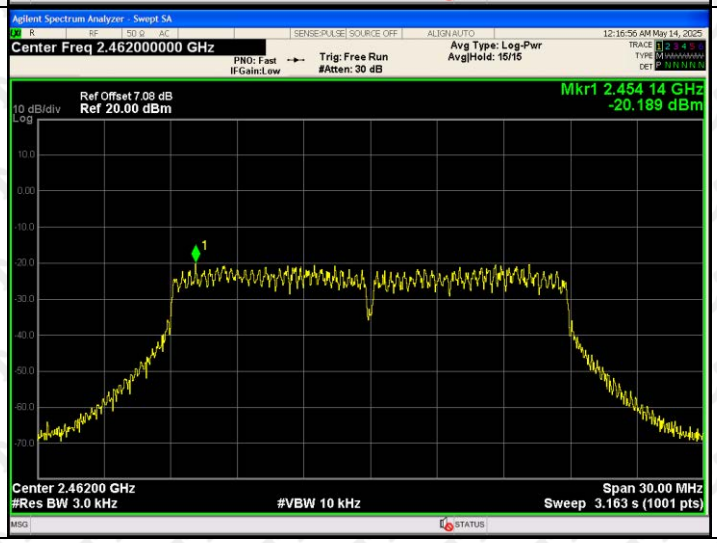
ANT1:
Test Graph

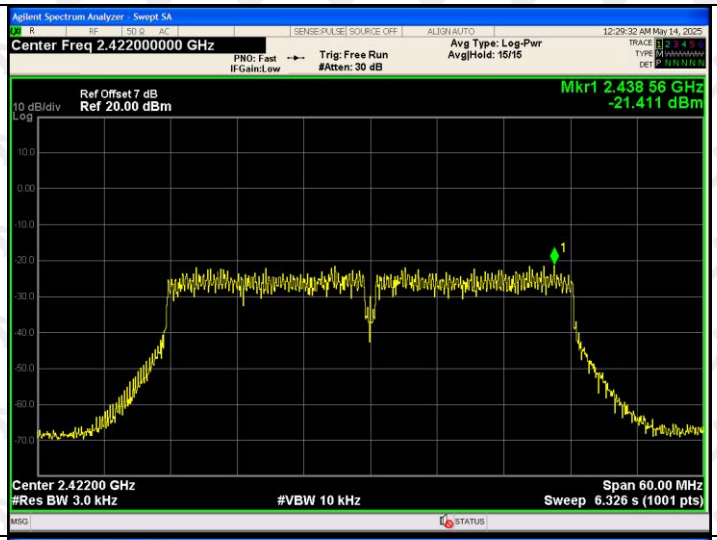
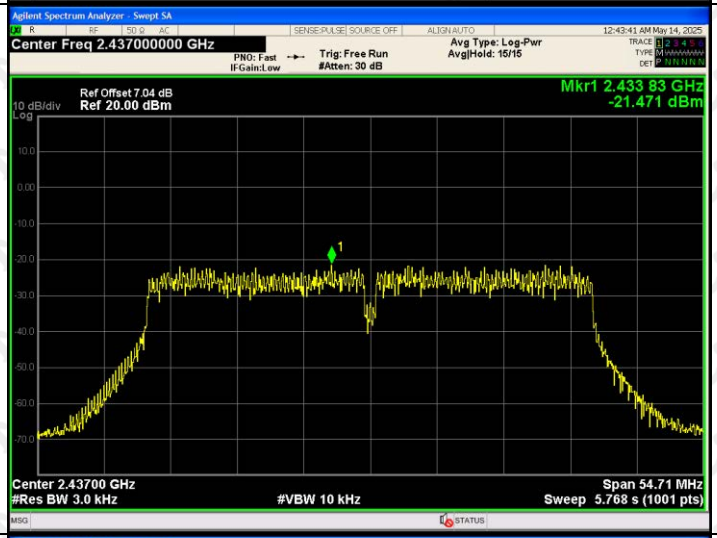
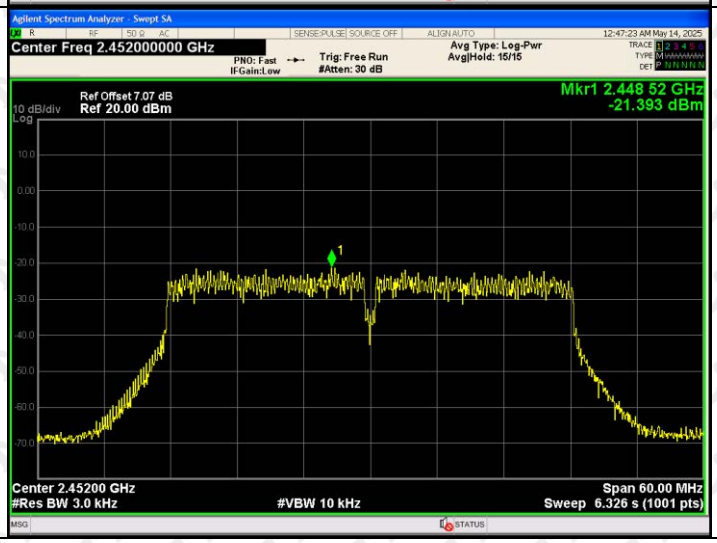
Graphs		
802.11b /LCH		
802.11b /MCH		
802.11b/HCH		

802.11g/LCH			
802.11g/MCH			
802.11g/HCH			

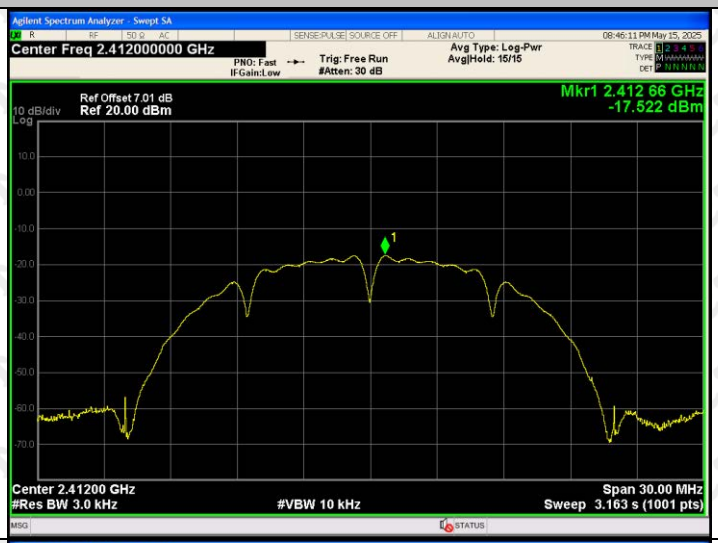
802.11n(HT20)/LCH			
802.11n(HT20)/MCH			
802.11n(HT20)/HCH			

802.11n(HT40)/LCH		
802.11n(HT40)/MCH		
802.11n(HT40)/HCH		

802.11ax(HT20)/LCH			
802.11ax(HT20)/MCH			
802.11ax(HT20)/HCH			

802.11ax(HT40)/LCH			
802.11ax(HT40)/MCH			
802.11ax(HT40)/HCH			

ANT 2:
Test Graph

Graphs		
802.11b /LCH		
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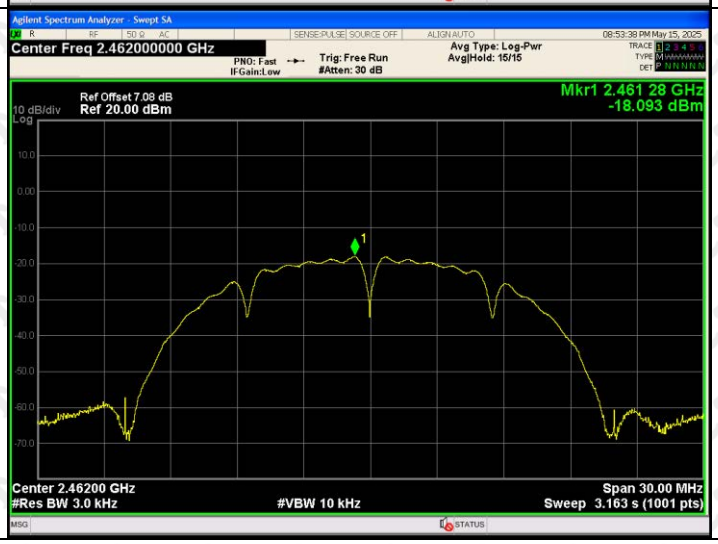
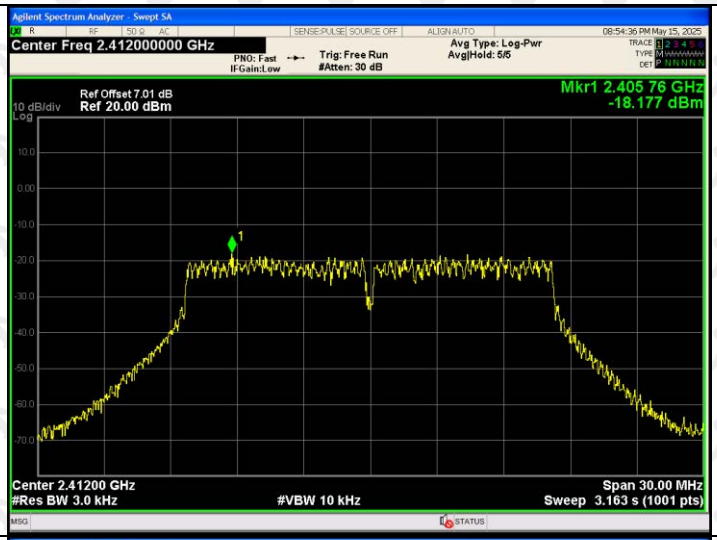
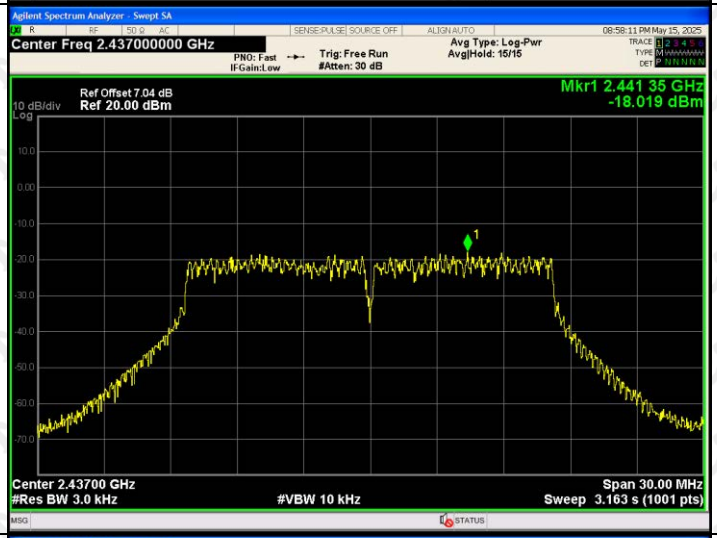
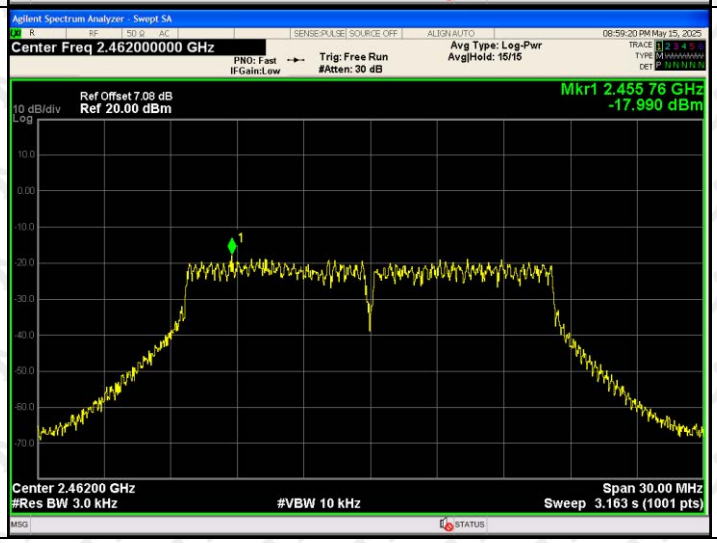
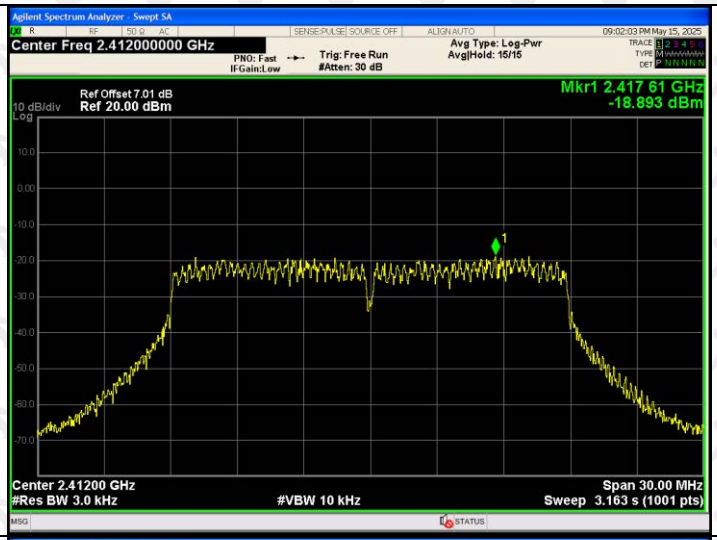
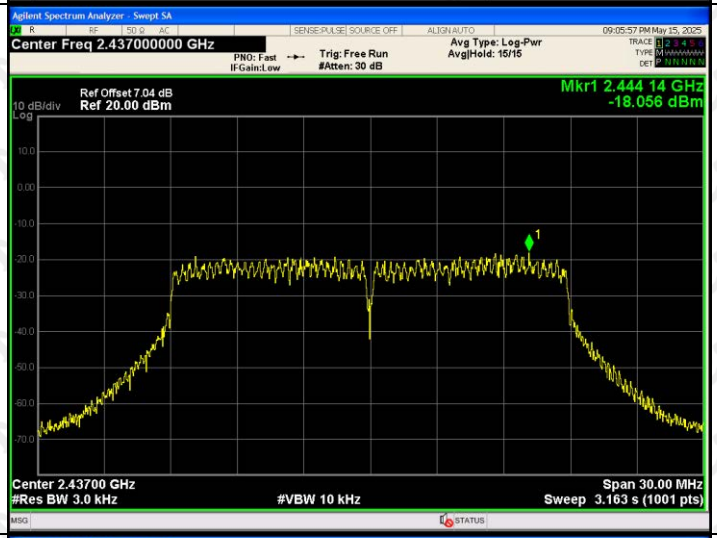
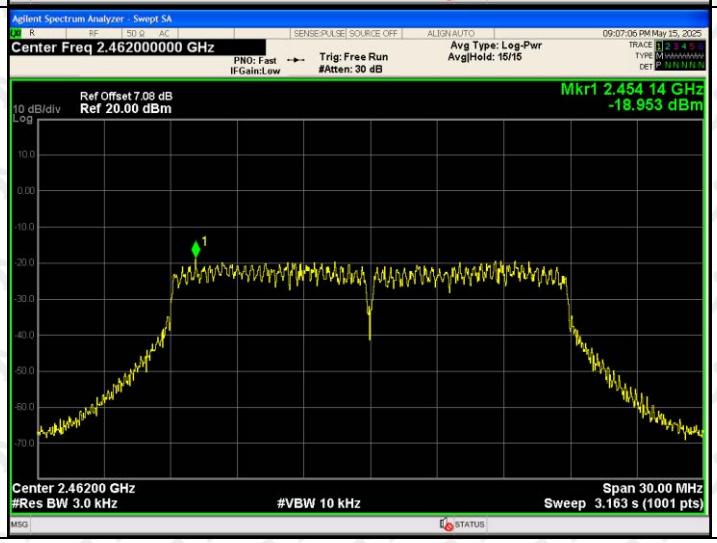
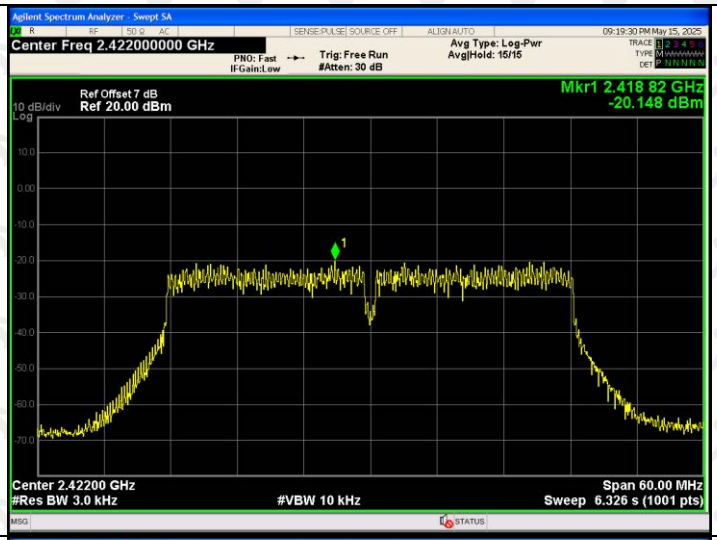
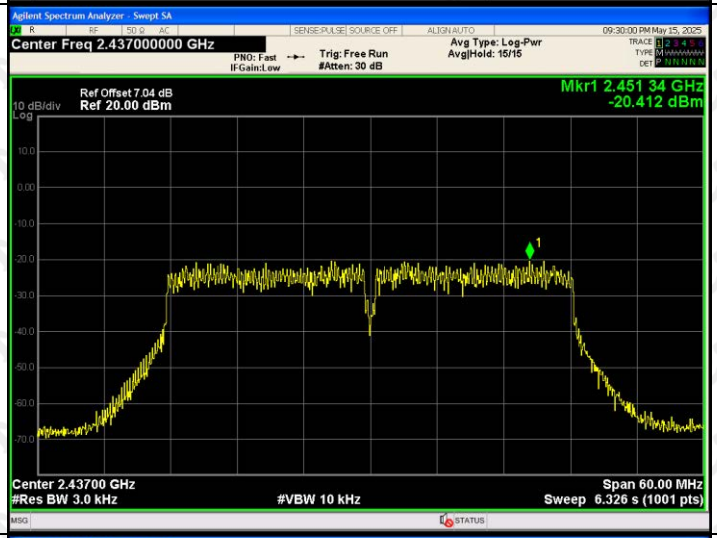
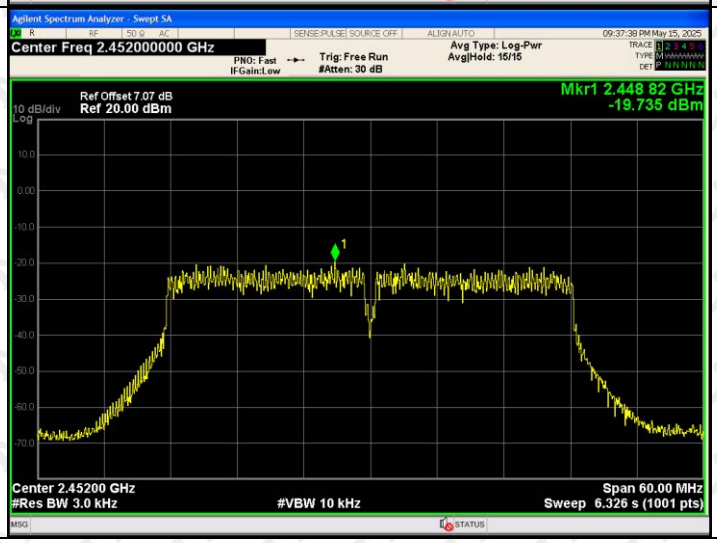
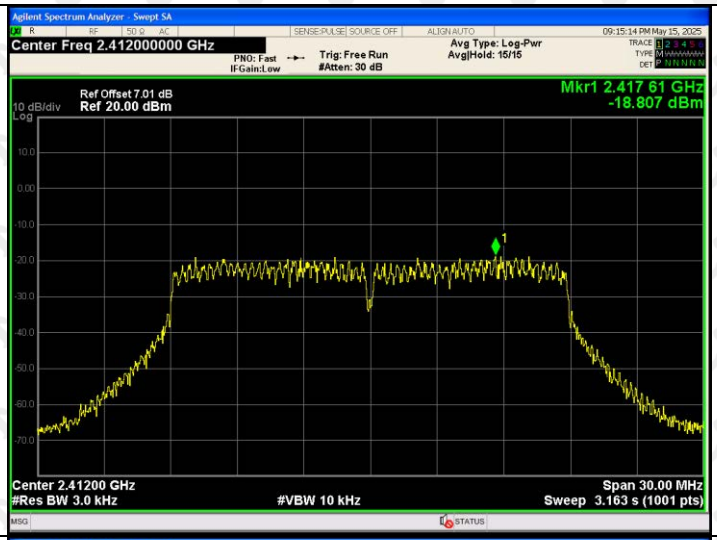
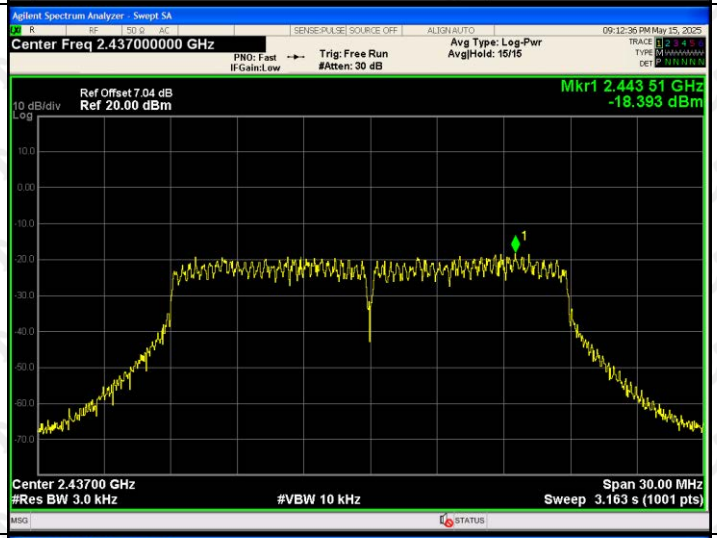
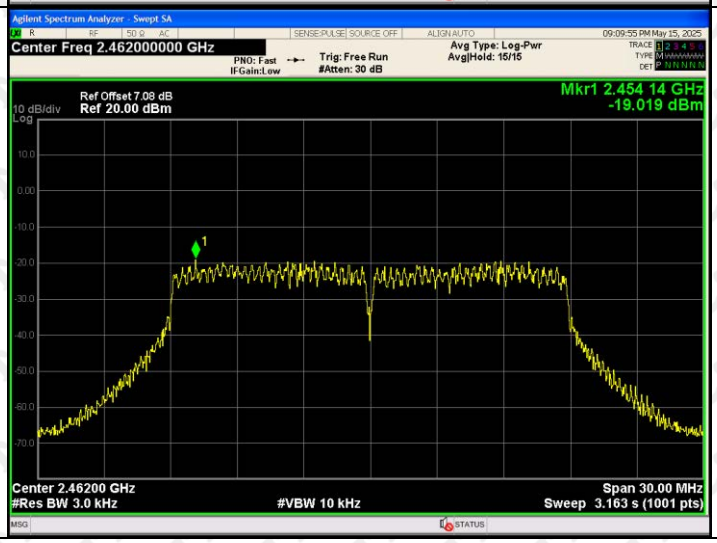
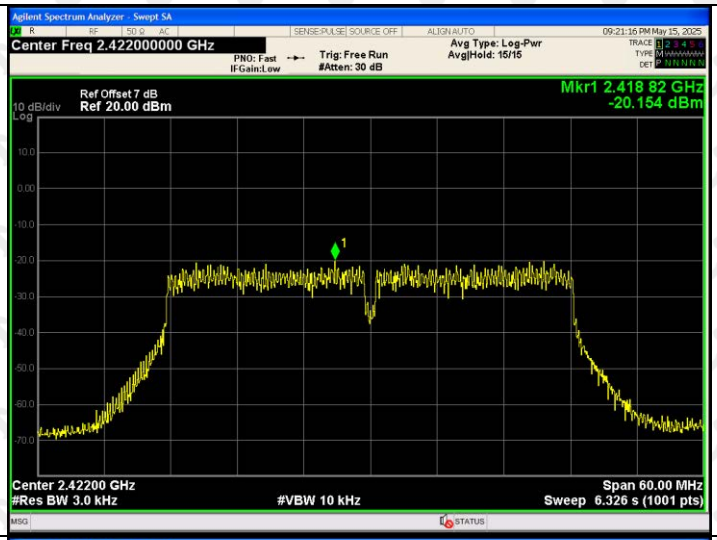
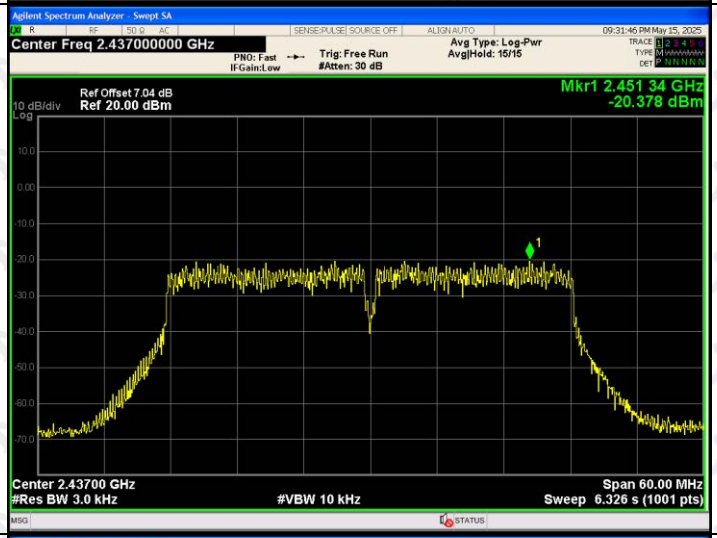
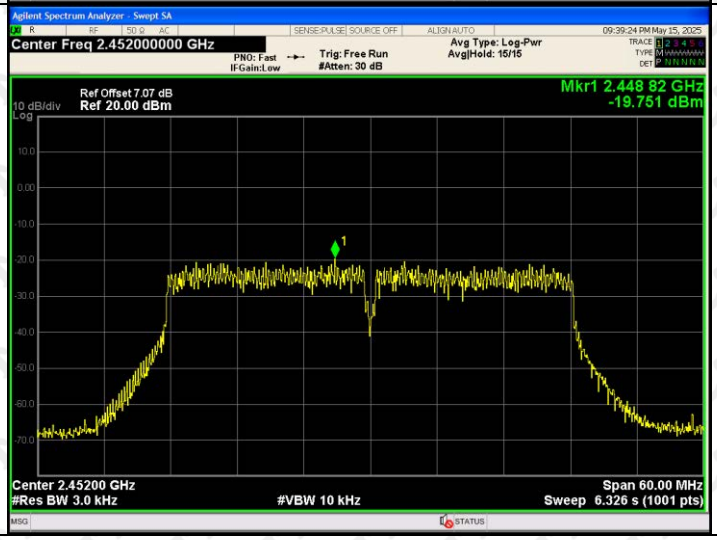
802.11b/HCH		

802.11g/LCH			
802.11g/MCH			
802.11g/HCH			

802.11n(HT20)/LCH			
802.11n(HT20)/MCH			
802.11n(HT20)/HCH			

802.11n(HT40)/LCH		
802.11n(HT40)/MCH		
802.11n(HT40)/HCH		

802.11ax(HT20)/LCH			
802.11ax(HT20)/MCH			
802.11ax(HT20)/HCH			

802.11ax(HT40)/LCH			
802.11ax(HT40)/MCH			
802.11ax(HT40)/HCH			

12. ANTENNA REQUIREMENT

15.203 requirement:
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.
15.247(b) (4) requirement:
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

EUT Antenna:

The antenna is External antenna and no consideration of replacement. The best case gain of the antenna is Ant1: 2.2dBi, Ant2: 2.2dBi

13. EUT TEST SETUP PHOTOGRAPHS

Radiated Emission

Below 1G

Above 1G

Conducted Emission

※※※※※ END OF REPORT ※※※※※