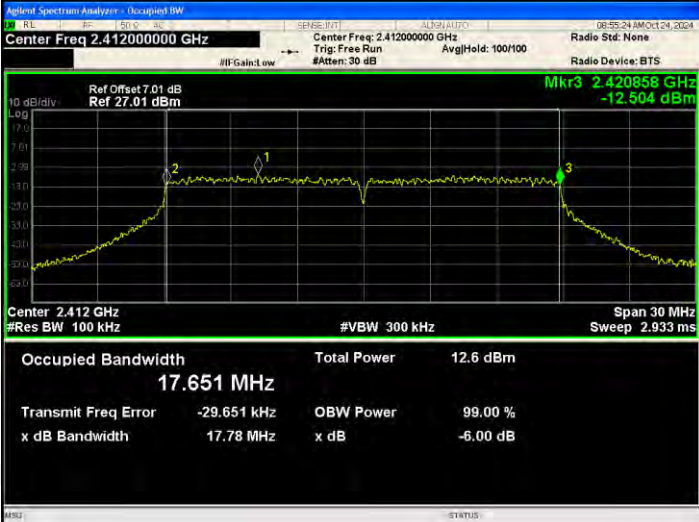
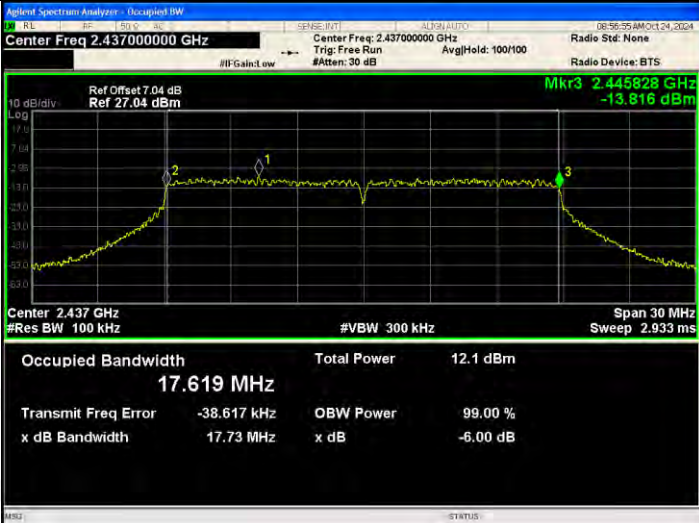
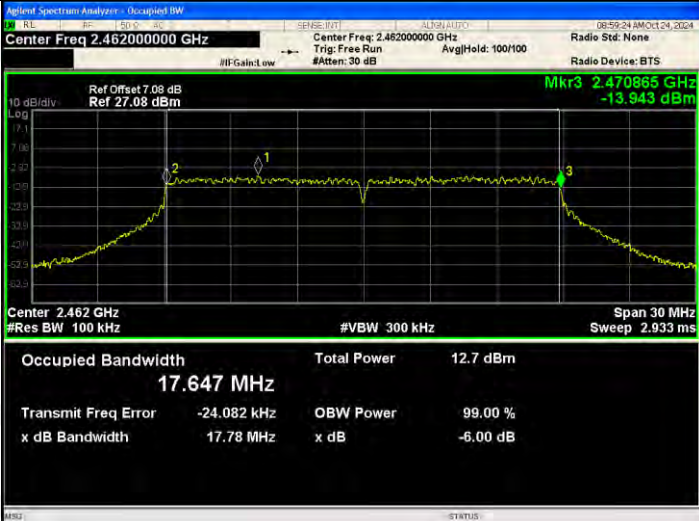
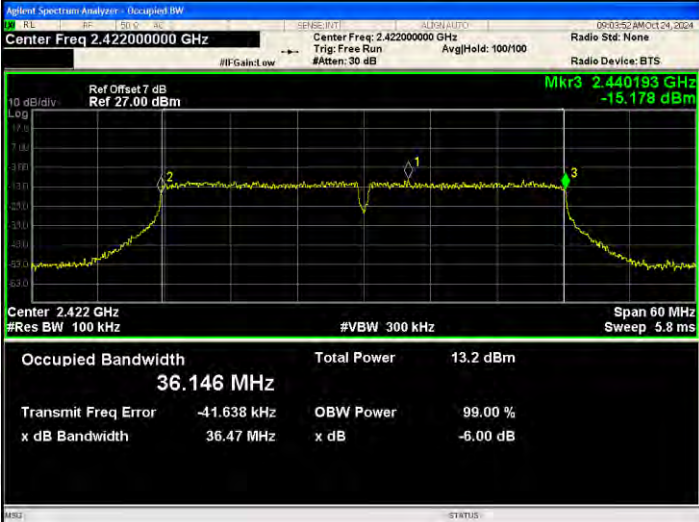
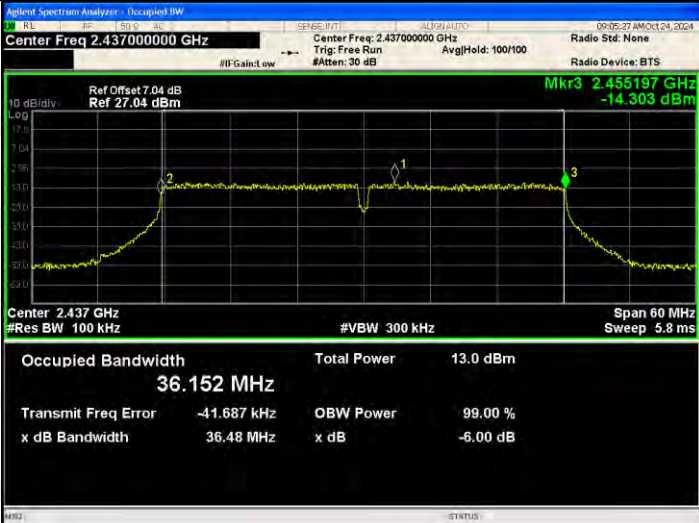
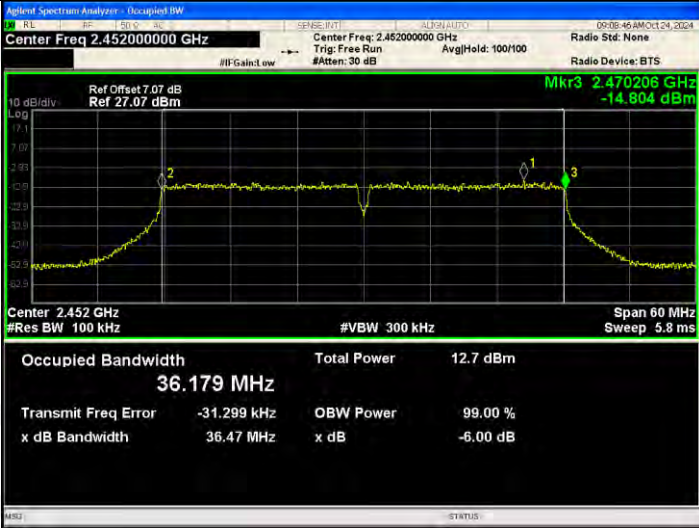


802.11n(HT20)/LC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.41200000 GHz Ref Offset 7.01 dB Ref 27.01 dBm Mkr3 2.420858 GHz -12.504 dBm Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.651 MHz Total Power 12.6 dBm Transmit Freq Error -29.651 kHz OBW Power 99.00 % x dB Bandwidth 17.78 MHz x dB -6.00 dB
802.11n(HT20)/MC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.43700000 GHz Ref Offset 7.04 dB Ref 27.04 dBm Mkr3 2.445828 GHz -13.816 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.619 MHz Total Power 12.1 dBm Transmit Freq Error -38.617 kHz OBW Power 99.00 % x dB Bandwidth 17.73 MHz x dB -6.00 dB
802.11n(HT20)/HC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.46200000 GHz Ref Offset 7.08 dB Ref 27.08 dBm Mkr3 2.470865 GHz -13.943 dBm Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.647 MHz Total Power 12.7 dBm Transmit Freq Error -24.082 kHz OBW Power 99.00 % x dB Bandwidth 17.78 MHz x dB -6.00 dB

802.11n(HT40)/LC H	
802.11n(HT40)/MC H	
802.11n(HT40)/HC H	

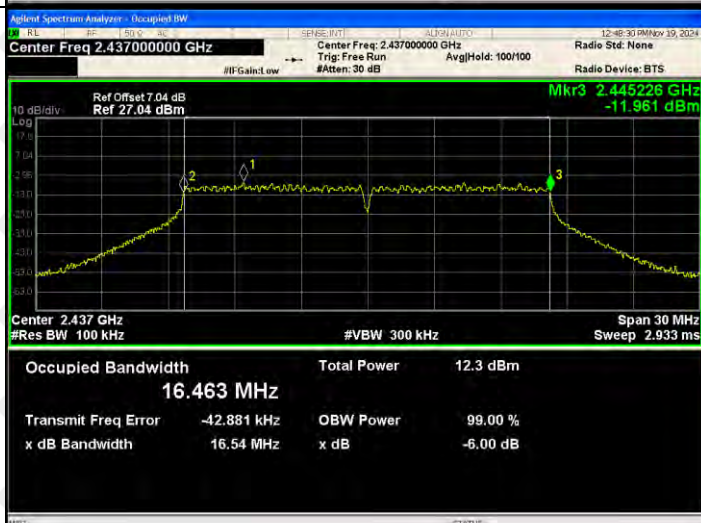
ANT2:
Test Graph:

Graphs		
802.11b /LCH		Agilent Spectrum Analyzer - Occupied BW Center Freq 2.41200000 GHz Center Freq: 2.41200000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 7.01 dB Ref 27.01 dBm Mkr3 2.41702 GHz -8.5575 dBm Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 14.972 MHz Total Power 14.3 dBm Transmit Freq Error -33.396 kHz OBW Power 99.00 % x dB Bandwidth 10.11 MHz x dB -6.00 dB
802.11b /MCH		Agilent Spectrum Analyzer - Occupied BW Center Freq 2.43700000 GHz Center Freq: 2.43700000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 7.04 dB Ref 27.04 dBm Mkr3 2.442009 GHz -8.0098 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 14.969 MHz Total Power 13.8 dBm Transmit Freq Error -55.543 kHz OBW Power 99.00 % x dB Bandwidth 10.13 MHz x dB -6.00 dB
802.11b/HCH		Agilent Spectrum Analyzer - Occupied BW Center Freq 2.46200000 GHz Center Freq: 2.46200000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS Ref Offset 7.08 dB Ref 27.08 dBm Mkr3 2.467051 GHz -5.7364 dBm Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 14.986 MHz Total Power 17.1 dBm Transmit Freq Error -11.298 kHz OBW Power 99.00 % x dB Bandwidth 10.12 MHz x dB -6.00 dB

802.11g/LCH



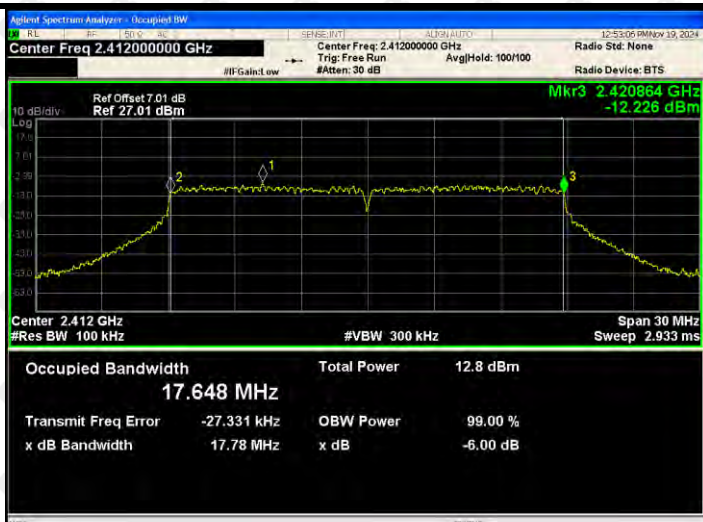
802.11g/MCH



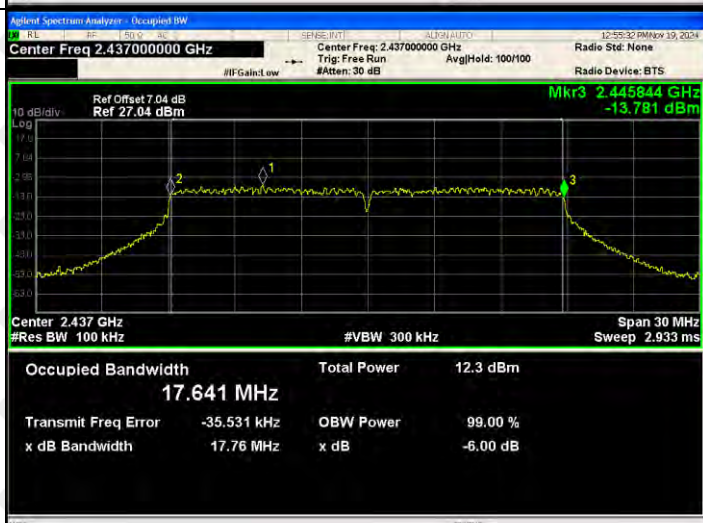
802.11g/HCH



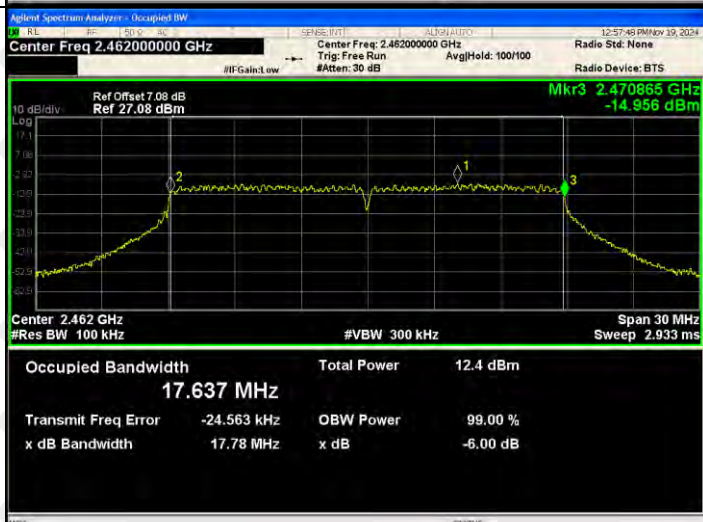
802.11n(HT20)/LC
H

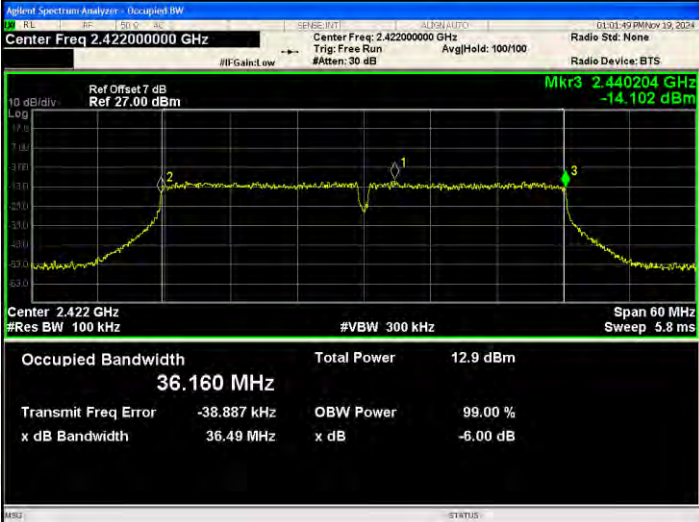
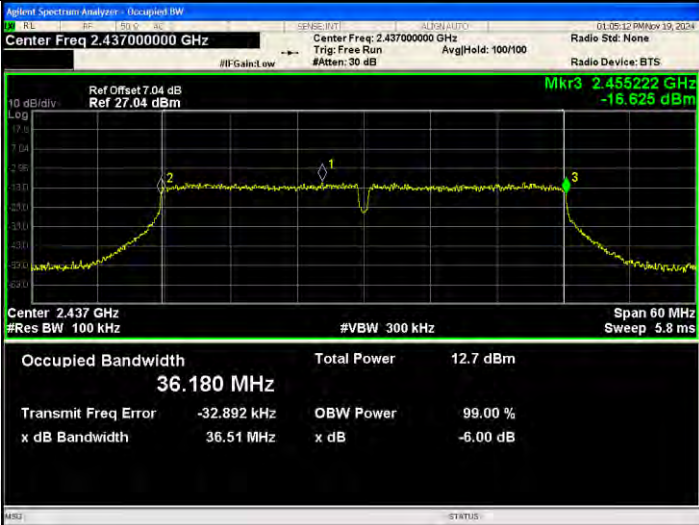
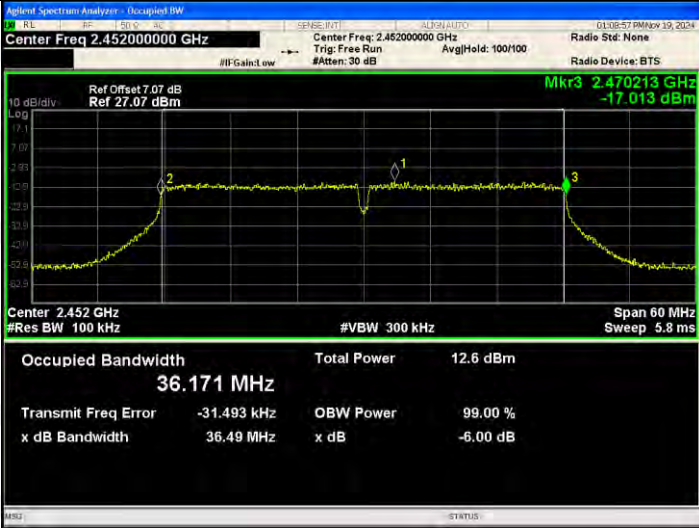


802.11n(HT20)/MC
H



802.11n(HT20)/HC
H

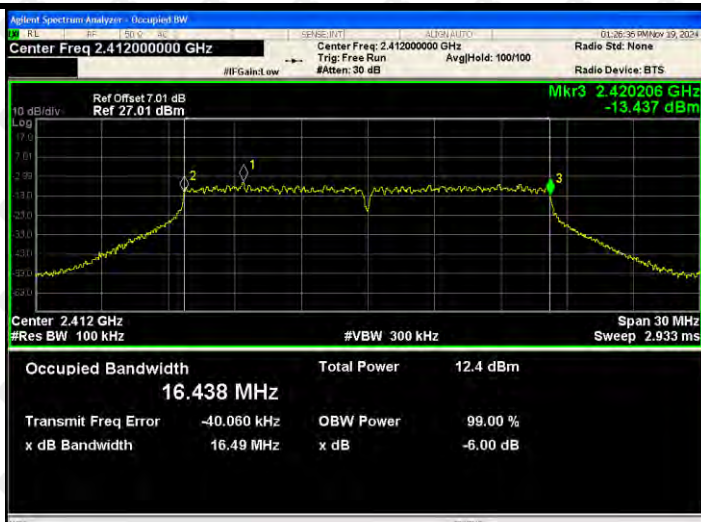


802.11n(HT40)/LC H	
802.11n(HT40)/MC H	
802.11n(HT40)/HC H	

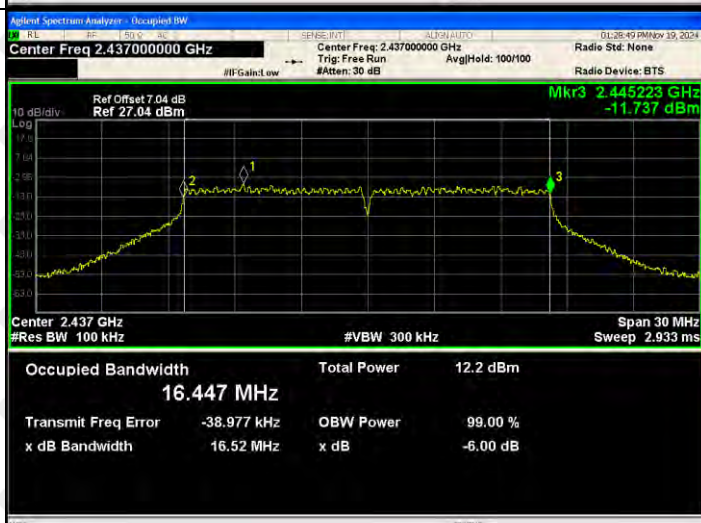
ANT3:
Test Graph:

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

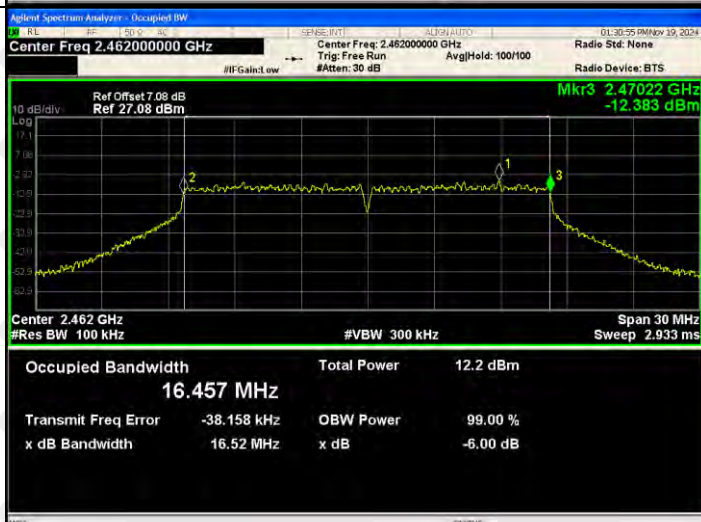
802.11g/LCH

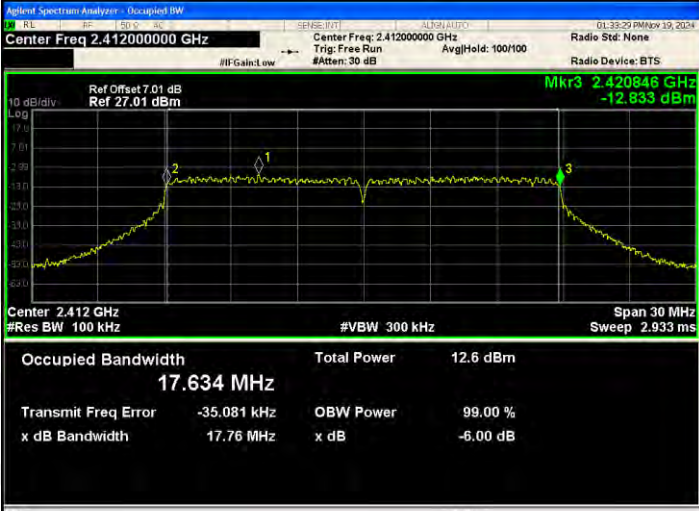
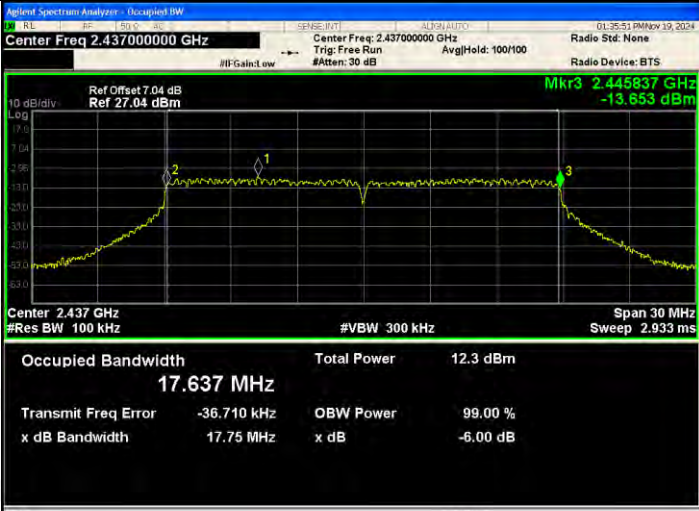
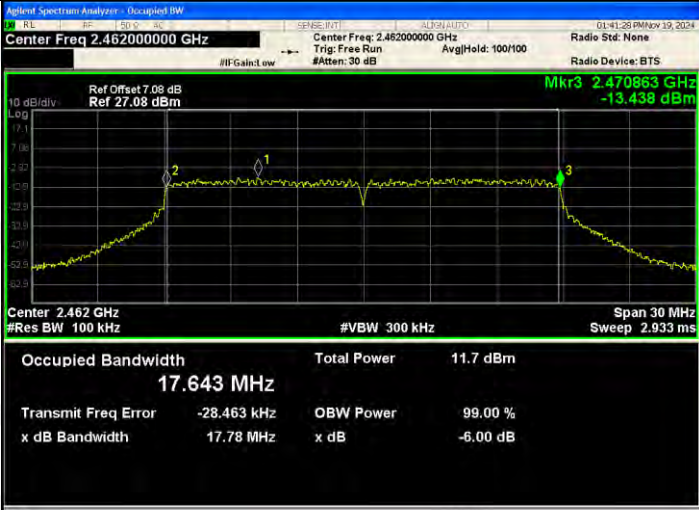


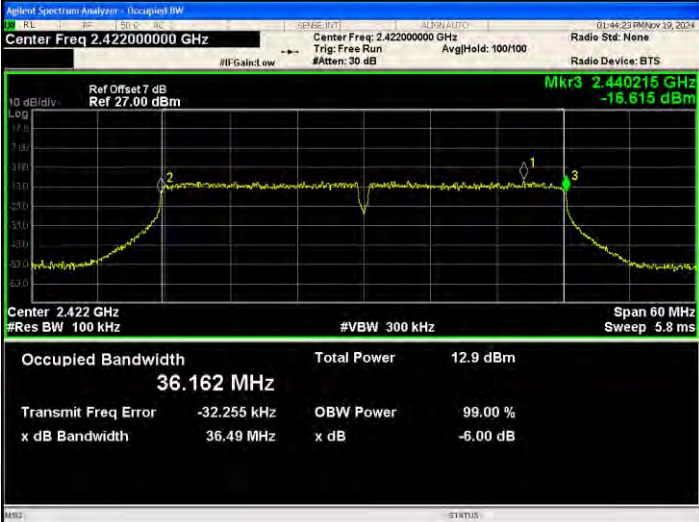
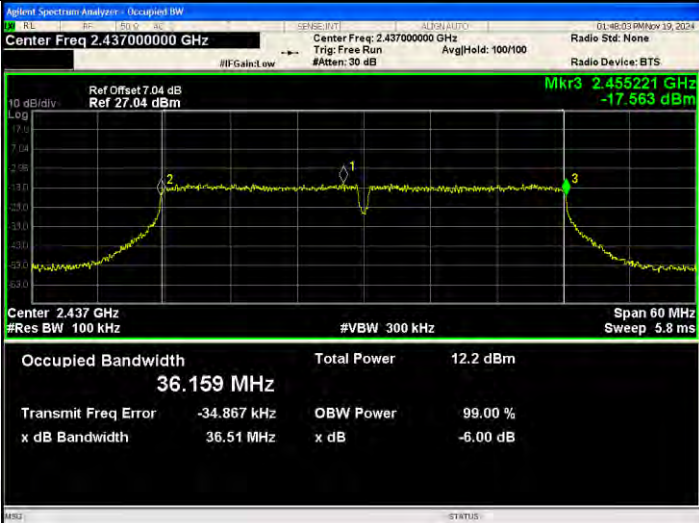
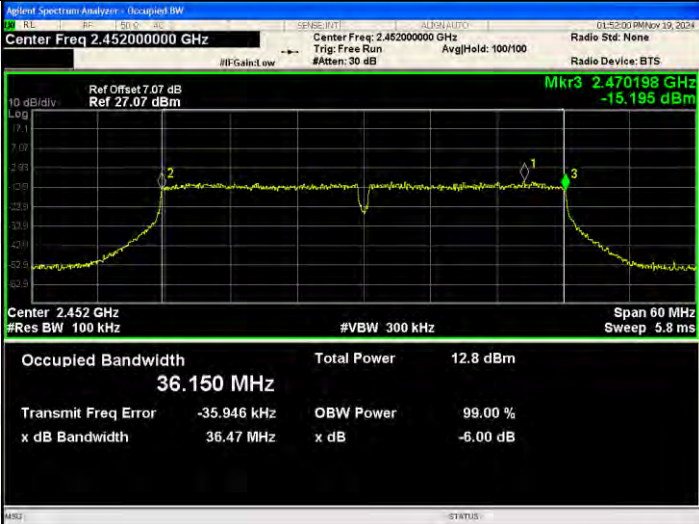
802.11g/MCH



802.11g/HCH



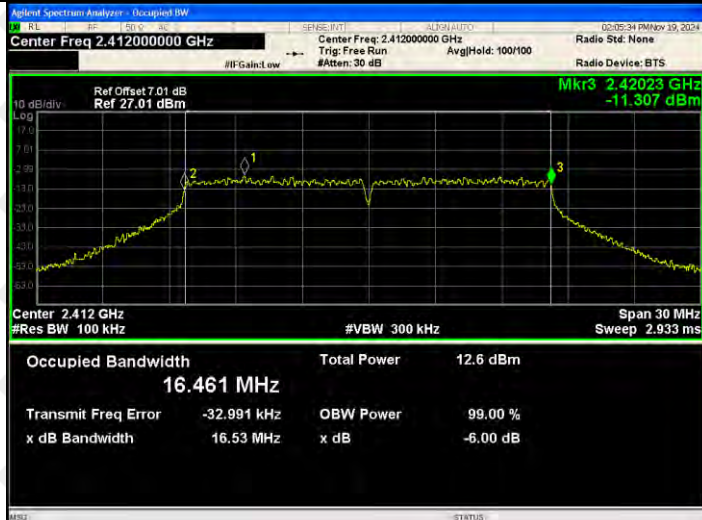
802.11n(HT20)/LC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.41200000 GHz Ref Offset 7.01 dB Ref 27.01 dBm Mkr3 2.420846 GHz -12.833 dBm Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.634 MHz Total Power 12.6 dBm Transmit Freq Error -35.081 kHz OBW Power 99.00 % x dB Bandwidth 17.76 MHz x dB -6.00 dB Radio Device: BTS
802.11n(HT20)/MC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.43700000 GHz Ref Offset 7.04 dB Ref 27.04 dBm Mkr3 2.445837 GHz -13.653 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.637 MHz Total Power 12.3 dBm Transmit Freq Error -36.710 kHz OBW Power 99.00 % x dB Bandwidth 17.75 MHz x dB -6.00 dB Radio Device: BTS
802.11n(HT20)/HC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.46200000 GHz Ref Offset 7.08 dB Ref 27.08 dBm Mkr3 2.470863 GHz -13.439 dBm Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.643 MHz Total Power 11.7 dBm Transmit Freq Error -28.463 kHz OBW Power 99.00 % x dB Bandwidth 17.78 MHz x dB -6.00 dB Radio Device: BTS

802.11n(HT40)/LC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.422000000 GHz Ref Offset 7 dB Ref 27.00 dBm Mkr3 2.440215 GHz -16.615 dBm Center 2.422 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms Occupied Bandwidth 36.162 MHz Total Power 12.9 dBm Transmit Freq Error -32.255 kHz OBW Power 99.00 % x dB Bandwidth 36.49 MHz x dB -6.00 dB
802.11n(HT40)/MC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.437000000 GHz Ref Offset 7.04 dB Ref 27.04 dBm Mkr3 2.455221 GHz -17.563 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms Occupied Bandwidth 36.159 MHz Total Power 12.2 dBm Transmit Freq Error -34.867 kHz OBW Power 99.00 % x dB Bandwidth 36.51 MHz x dB -6.00 dB
802.11n(HT40)/HC H	 Agilent Spectrum Analyzer - Occupied BW Center Freq 2.452000000 GHz Ref Offset 7.07 dB Ref 27.07 dBm Mkr3 2.470198 GHz -15.195 dBm Center 2.452 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms Occupied Bandwidth 36.150 MHz Total Power 12.8 dBm Transmit Freq Error -35.946 kHz OBW Power 99.00 % x dB Bandwidth 36.47 MHz x dB -6.00 dB

ANT4:
Test Graph:

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

802.11g/LCH



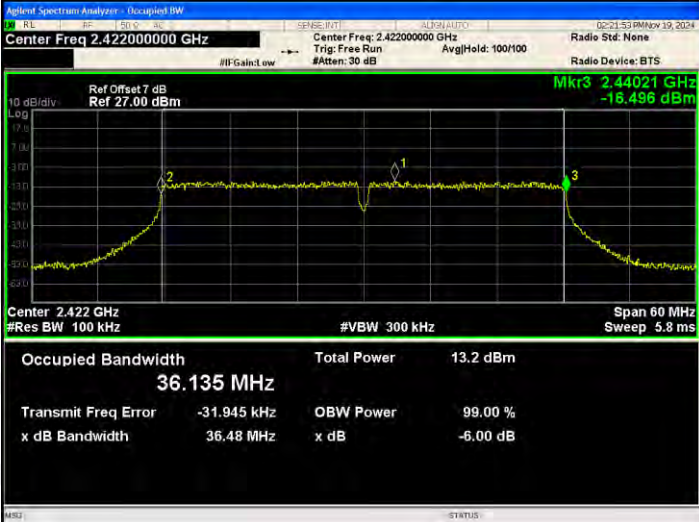
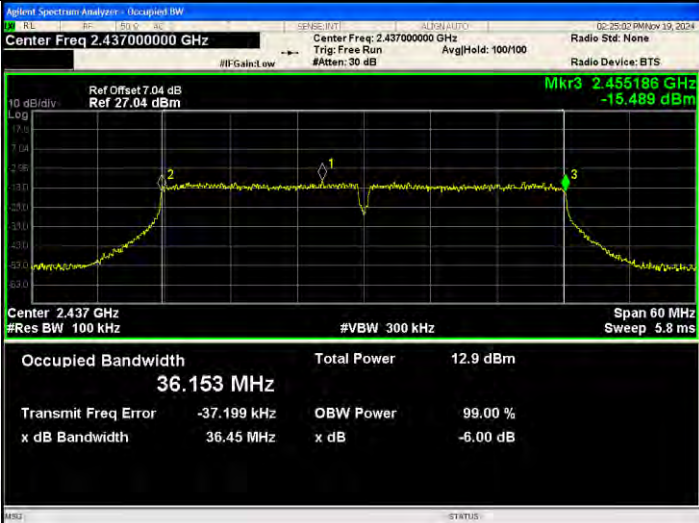
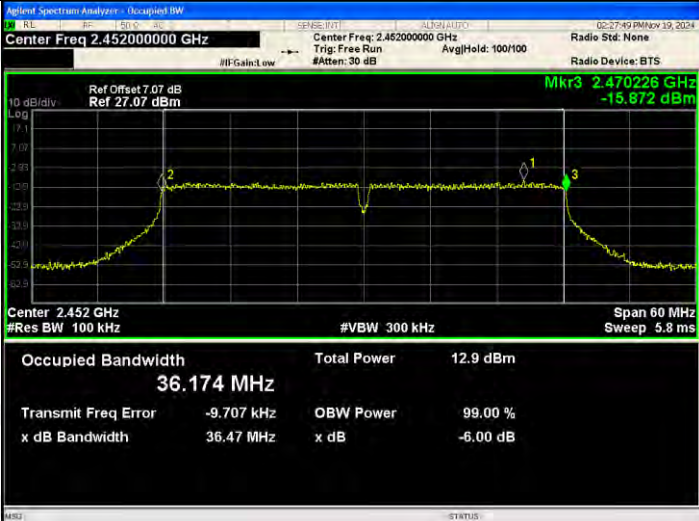
802.11g/MCH



802.11g/HCH

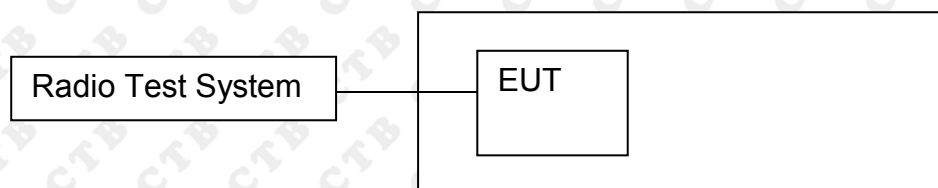


802.11n(HT20)/LC H	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.41200000 GHz Ref Offset 7.01 dB Ref 27.01 dBm Mkr3 2.420876 GHz -12.711 dBm Center 2.412 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.631 MHz Total Power 13.0 dBm Transmit Freq Error -21.679 kHz OBW Power 99.00 % x dB Bandwidth 17.79 MHz x dB -6.00 dB
802.11n(HT20)/MC H	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.43700000 GHz Ref Offset 7.04 dB Ref 27.04 dBm Mkr3 2.445852 GHz -12.747 dBm Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.627 MHz Total Power 12.7 dBm Transmit Freq Error -33.526 kHz OBW Power 99.00 % x dB Bandwidth 17.77 MHz x dB -6.00 dB
802.11n(HT20)/HC H	Agilent Spectrum Analyzer - Occupied BW Center Freq 2.46200000 GHz Ref Offset 7.08 dB Ref 27.08 dBm Mkr3 2.470872 GHz -13.552 dBm Center 2.462 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 17.621 MHz Total Power 12.8 dBm Transmit Freq Error -14.203 kHz OBW Power 99.00 % x dB Bandwidth 17.77 MHz x dB -6.00 dB

802.11n(HT40)/LC H	
802.11n(HT40)/MC H	
802.11n(HT40)/HC H	

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

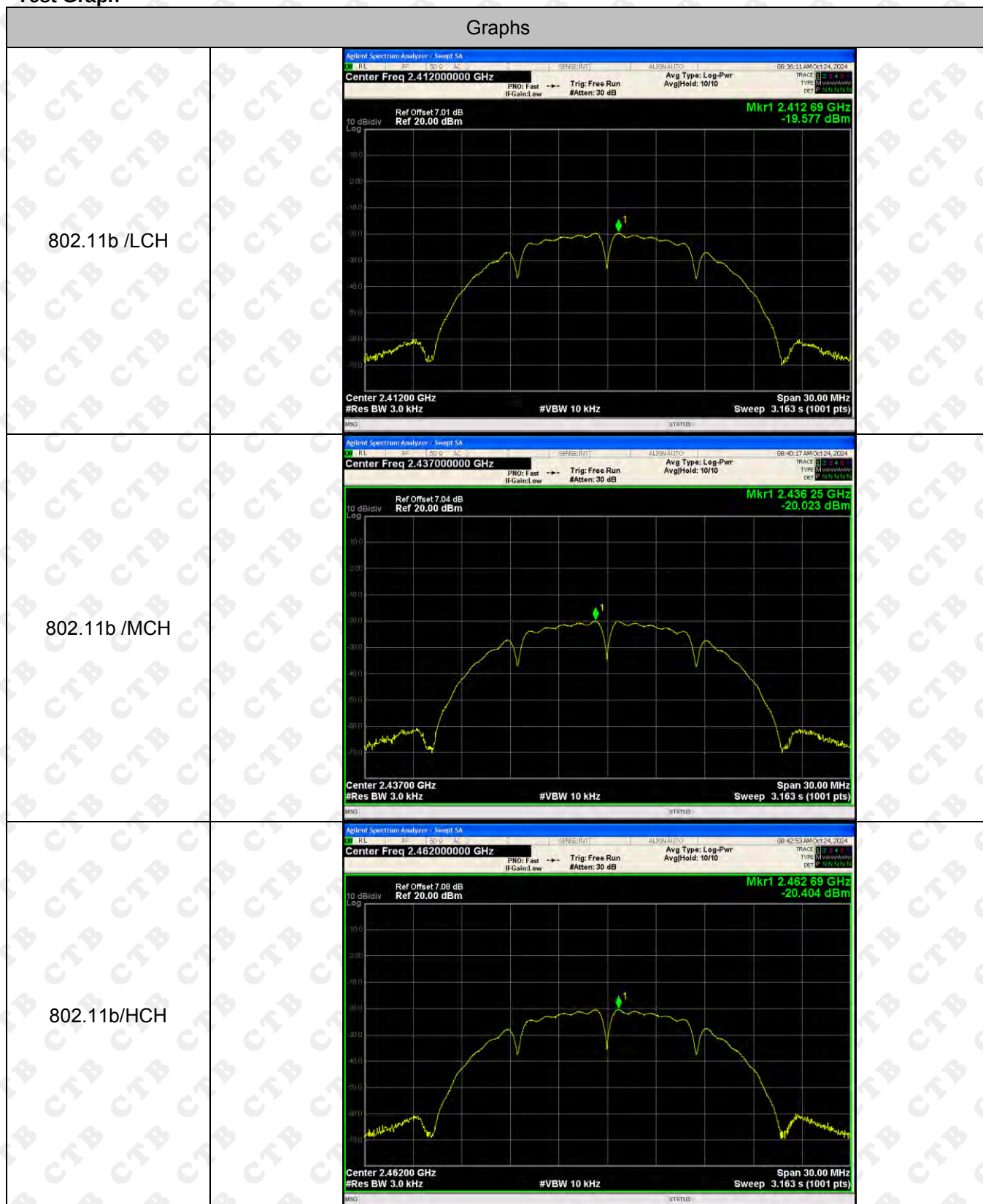
11.3 Test procedure

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: $3\text{ kHz} \leq \text{RBW} \leq 100\text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
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.	Maximum Peak Power [dBm] ANT1	Maximum Peak Power [dBm] ANT2	Maximum Peak Power [dBm] ANT3	Maximum Peak Power [dBm] ANT4	Limit [dBm]
802.11b	LCH	-19.577	-22.594	-20.380	-20.725	30
	MCH	-20.023	-23.093	-20.884	-21.141	30
	HCH	-20.404	-20.059	-20.869	-20.261	30
802.11g	LCH	-19.999	-20.506	-20.404	-20.207	30
	MCH	-19.701	-20.501	-20.972	-20.167	30
	HCH	-19.923	-20.656	-20.702	-20.352	30
802.11n(HT20)	LCH	-20.916	-20.774	-20.834	-20.607	30
	MCH	-21.429	-21.299	-21.604	-20.610	30
	HCH	-20.845	-20.791	-21.425	-20.399	30
802.11n(HT40)	LCH	-22.035	-22.518	-22.316	-22.306	30
	MCH	-22.899	-22.996	-23.022	-22.458	30
	HCH	-23.028	-22.952	-22.906	-22.482	30

ANT1: Test Graph



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



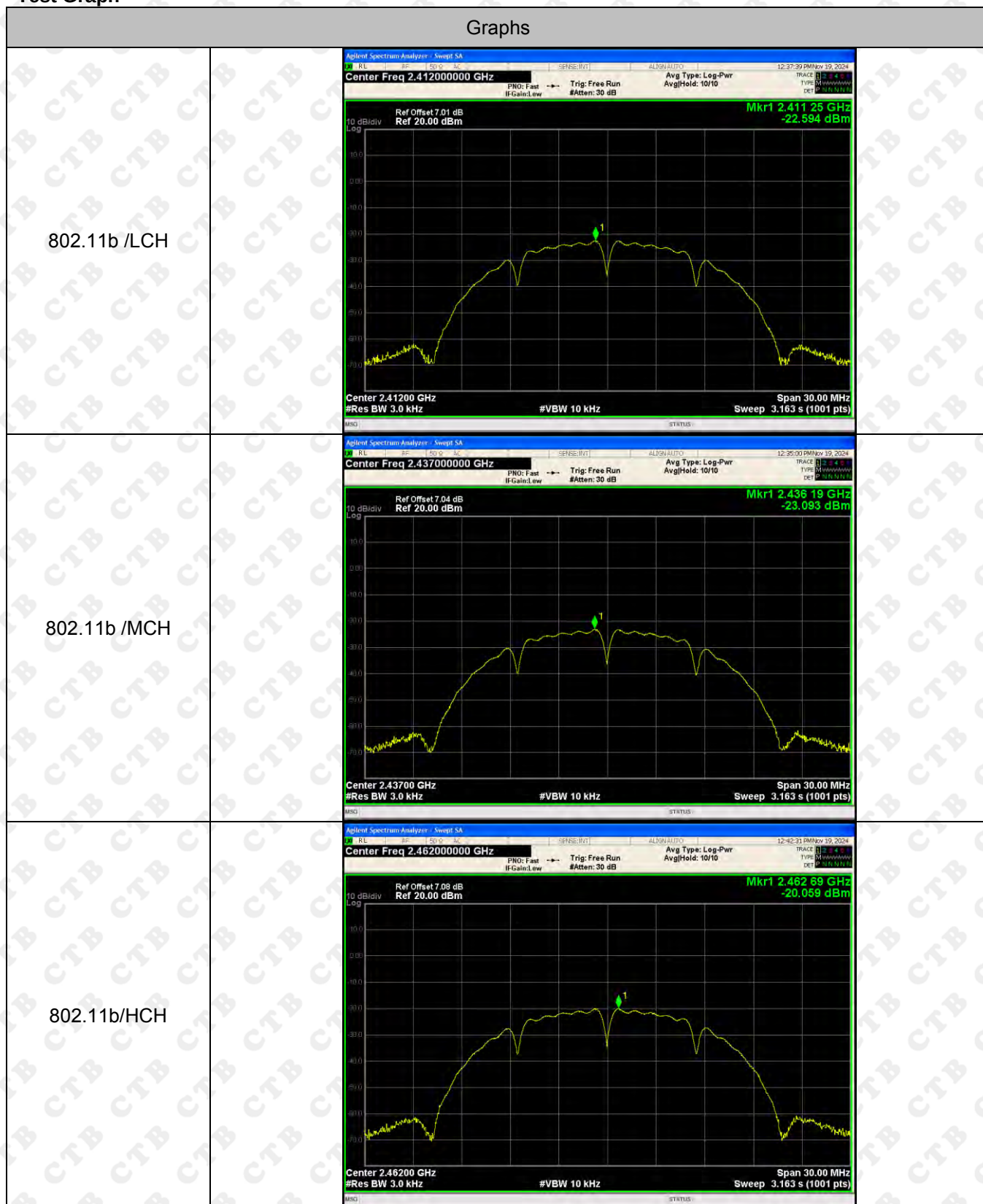
802.11n(HT40)/MCH



802.11n(HT40)/HCH



ANT2: Test Graph



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



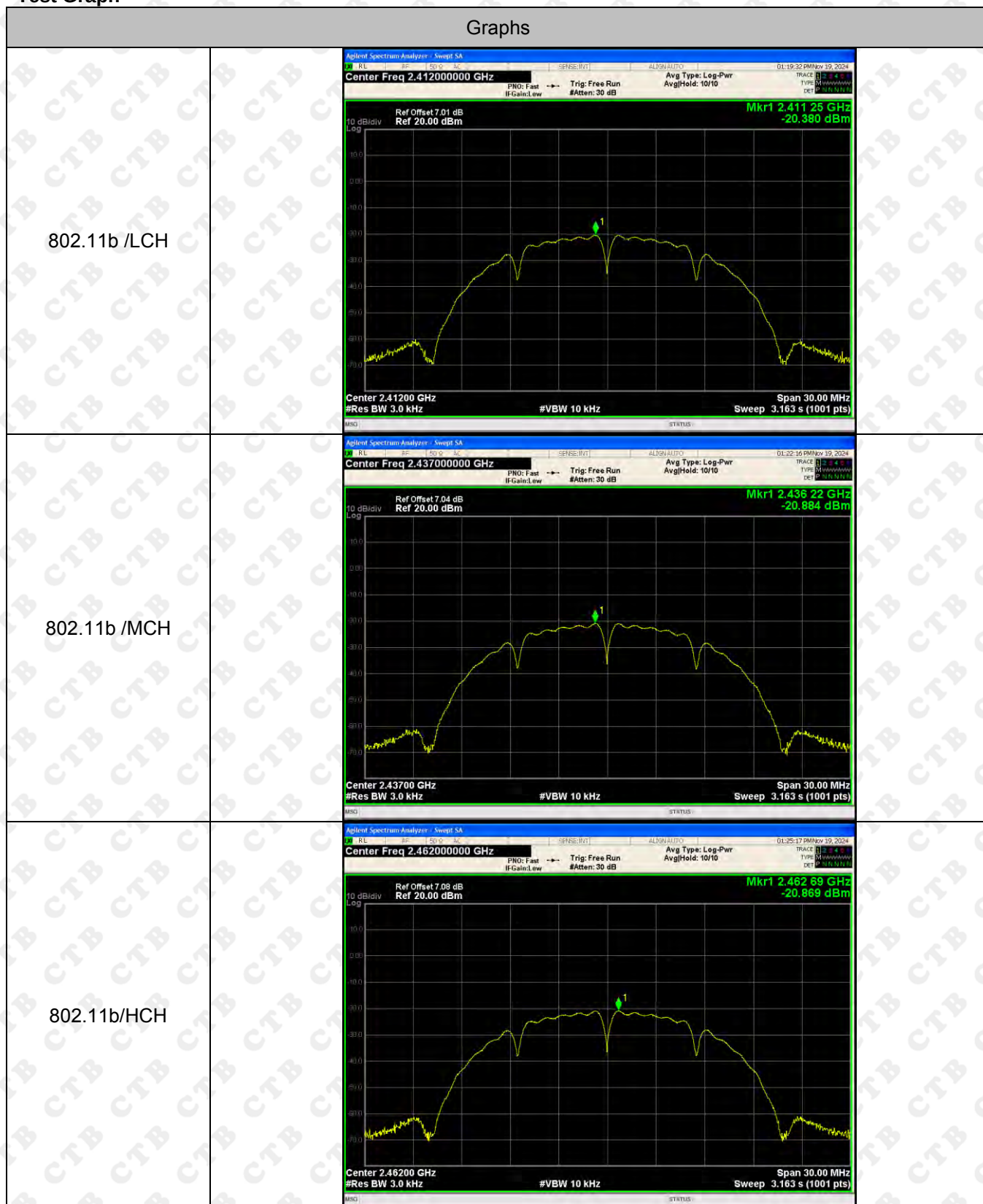
802.11n(HT40)/MCH



802.11n(HT40)/HCH



ANT3: Test Graph



802.11g/LCH



802.11g/MCH



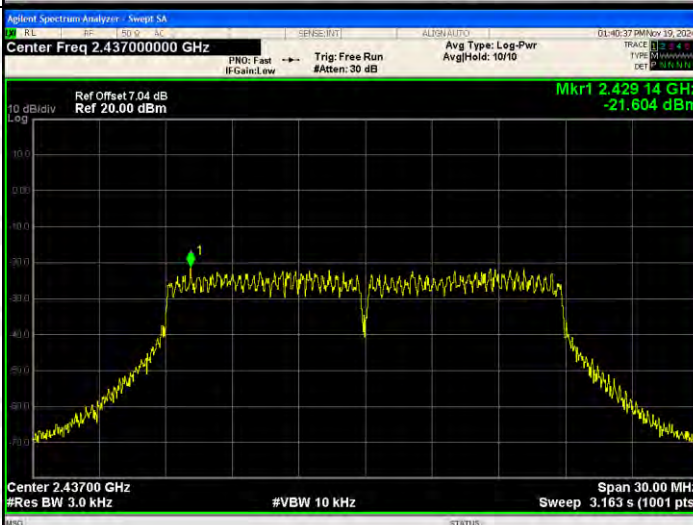
802.11g/HCH



802.11n(HT20)/LCH



802.11n(HT20)/MCH



802.11n(HT20)/HCH



802.11n(HT40)/LCH



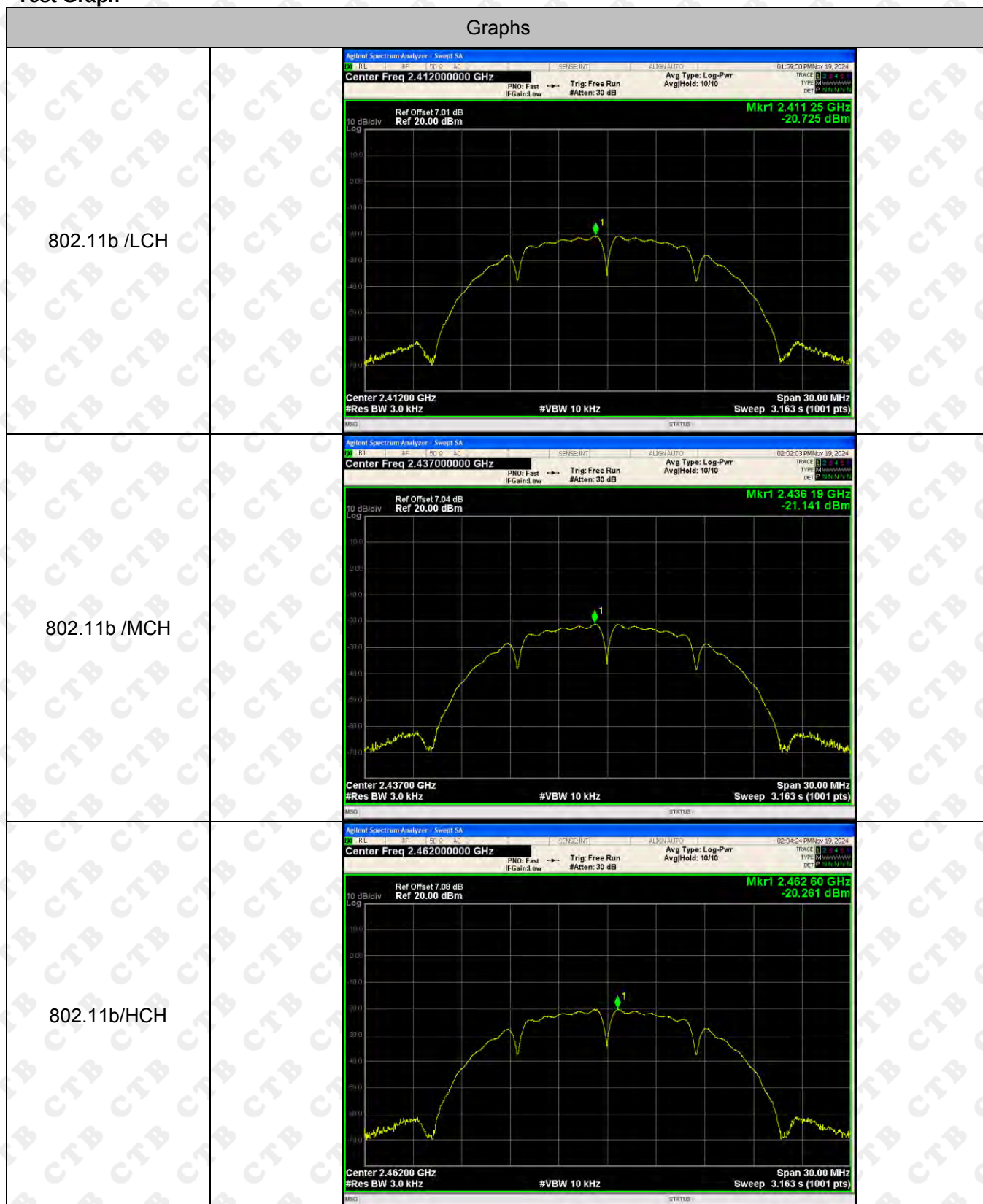
802.11n(HT40)/MCH



802.11n(HT40)/HCH



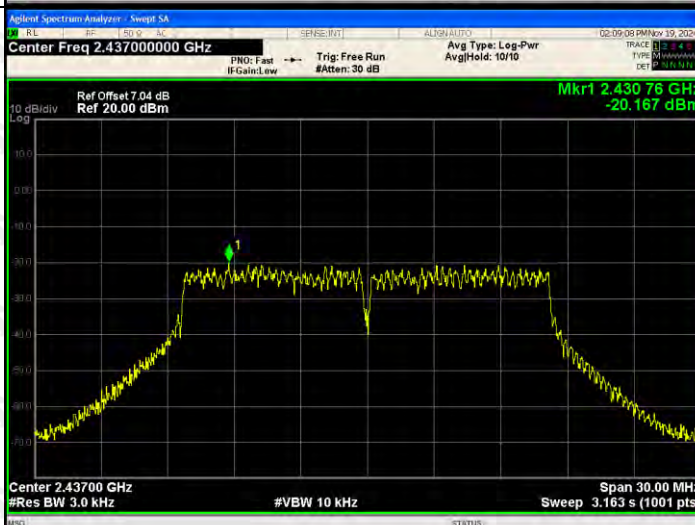
ANT4: Test Graph



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	

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.

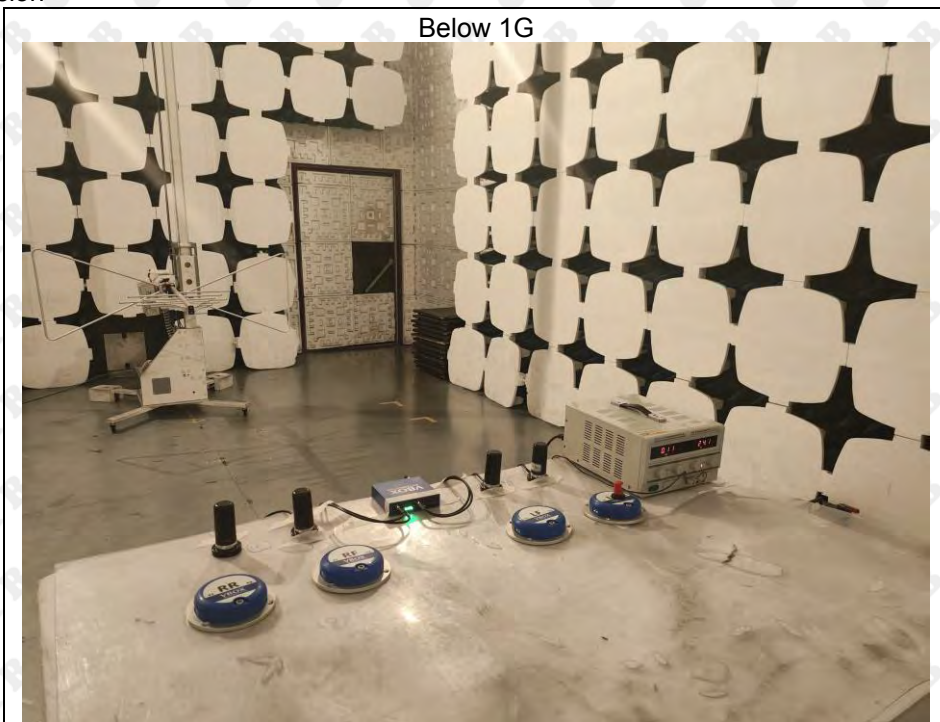
EUT Antenna:

The antenna is External antenna and no consideration of replacement. The best case gain of the antenna is -3.71dBi.

13. EUT TEST SETUP PHOTOGRAPHS

Radiated Emission

Below 1G



Above 1G



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