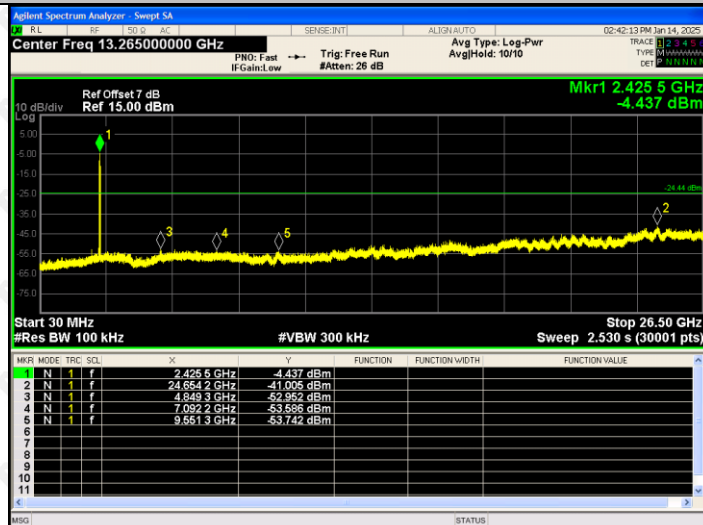
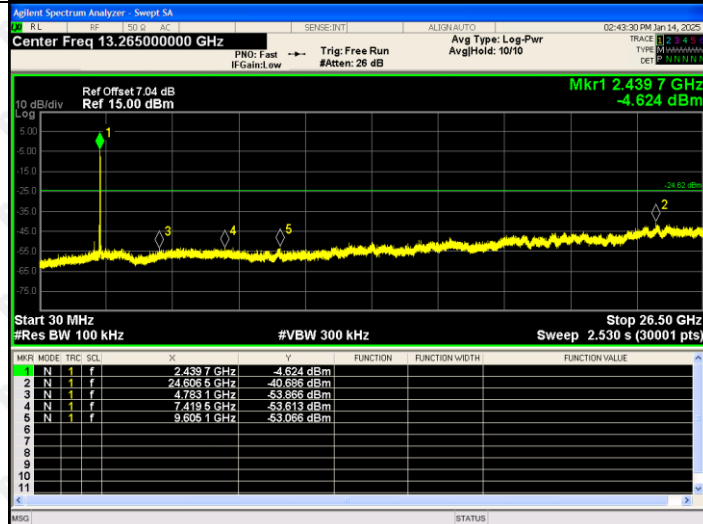


RF Conducted Spurious Emissions Graphs

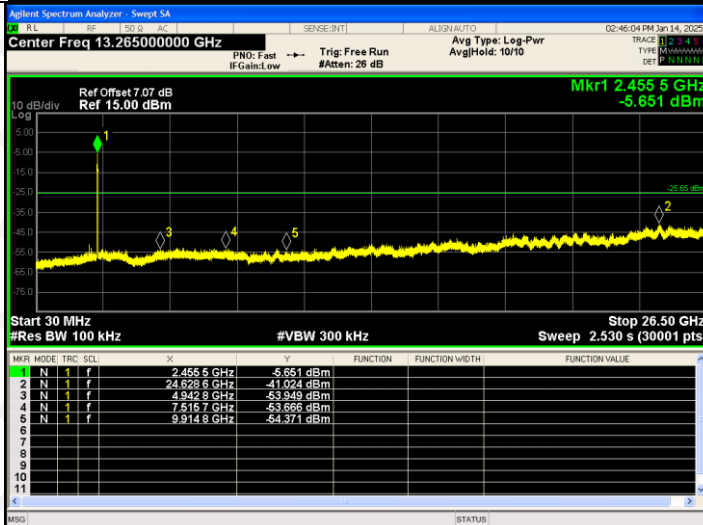
802.11ax(HT40)/LCH



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)	Maximum Conducted Output Power	1 watt or 30dBm	2400-2483.5	PASS

### 9.3 Test procedure

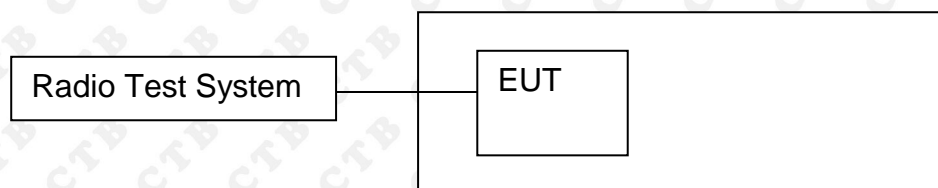
1. The EUT was directly connected to the Power meter

### 9.4 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
802.11b	LCH	17.666	30	PASS
	MCH	16.846	30	PASS
	HCH	15.053	30	PASS
802.11g	LCH	15.805	30	PASS
	MCH	15.150	30	PASS
	HCH	13.635	30	PASS
802.11n(HT20)	LCH	16.494	30	PASS
	MCH	15.838	30	PASS
	HCH	14.189	30	PASS
802.11n(HT40)	LCH	16.389	30	PASS
	MCH	15.913	30	PASS
	HCH	15.228	30	PASS
802.11ax(HT20)	LCH	16.325	30	PASS
	MCH	15.701	30	PASS
	HCH	14.238	30	PASS
802.11ax(HT40)	LCH	16.106	30	PASS
	MCH	15.718	30	PASS
	HCH	14.825	30	PASS

### 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	$\geq 500\text{kHz}$ (6dB bandwidth)	2400-2483.5	PASS

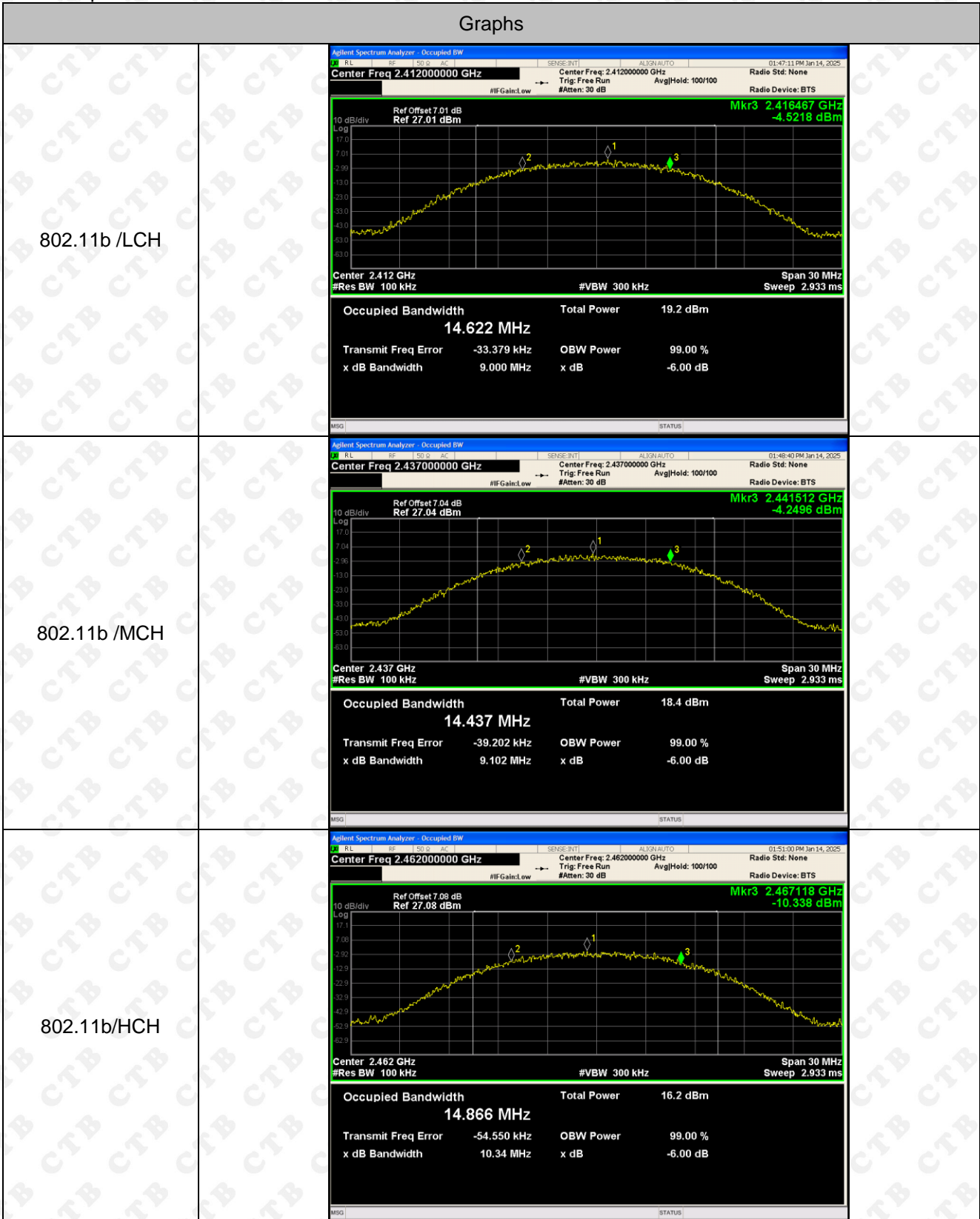
#### 10.3 Test procedure

1. Rem1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW)  $\geq 3 \times$  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

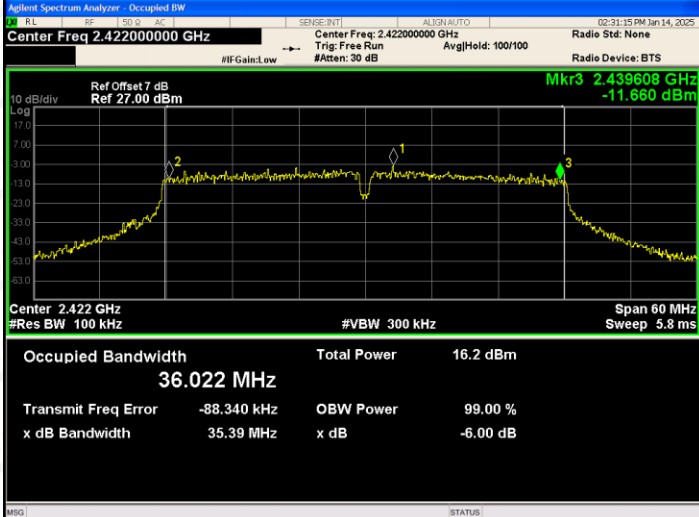
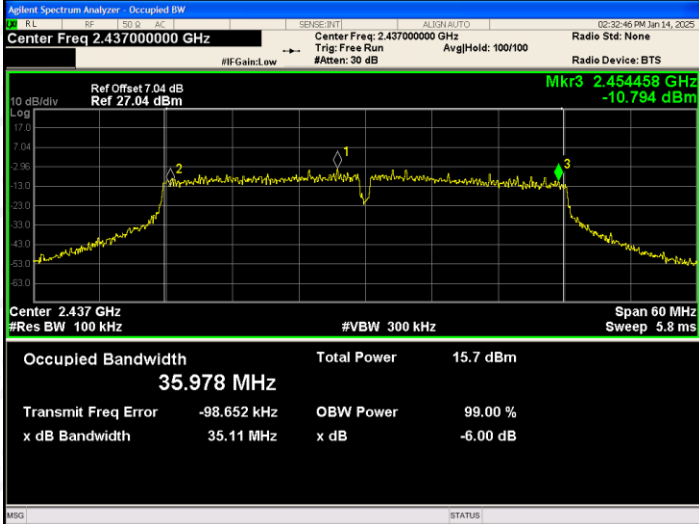
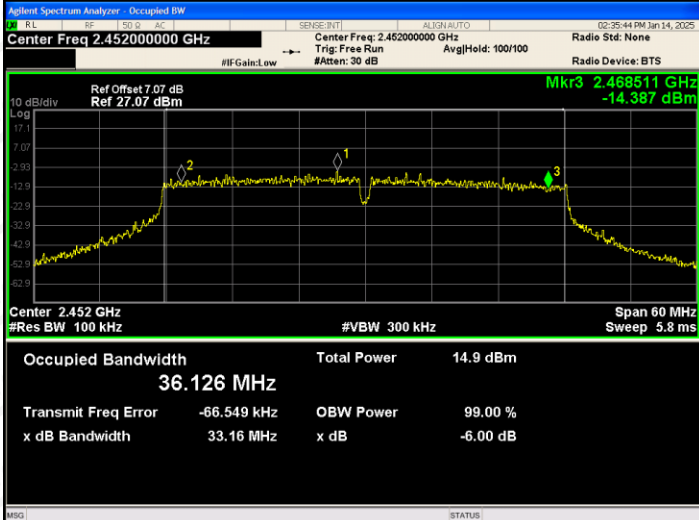
Test Mode	Frequency	6dB Bandwidth (MHz)	Limit(kHz)	Result
802.11b	LCH	9.000	500	PASS
	MCH	9.102	500	PASS
	HCH	10.344	500	PASS
802.11g	LCH	16.275	500	PASS
	MCH	16.038	500	PASS
	HCH	16.349	500	PASS
802.11n(HT20)	LCH	15.582	500	PASS
	MCH	16.988	500	PASS
	HCH	16.676	500	PASS
802.11n(HT40)	LCH	35.393	500	PASS
	MCH	35.113	500	PASS
	HCH	33.156	500	PASS
802.11ax(HT20)	LCH	16.831	500	PASS
	MCH	16.440	500	PASS
	HCH	17.706	500	PASS
802.11ax(HT40)	LCH	32.876	500	PASS
	MCH	36.390	500	PASS
	HCH	36.533	500	PASS

Test Graph:



<p>802.11g/LCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW          Center Freq 2.41200000 GHz          Center Freq: 2.41200000 GHz          Trig: Free Run          #IF Gain: Low          #Atten: 30 dB          Avg/Hold: 100/100          Radio Std: None          Radio Device: BTS</p> <p>Ref Offset 7.01 dB          Ref 27.01 dBm          Mkr3 2.420129 GHz          -7.2890 dBm</p> <p>Center 2.412 GHz          #Res BW 100 kHz          #VBW 300 kHz          Span 30 MHz          Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>15.6 dBm</td> </tr> <tr> <td>16.410 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-8.874 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>16.28 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	15.6 dBm	16.410 MHz			Transmit Freq Error	OBW Power	99.00 %	-8.874 kHz	x dB	-6.00 dB	x dB Bandwidth			16.28 MHz		
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x dB Bandwidth																			
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<p>802.11g/MCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW          Center Freq 2.43700000 GHz          Center Freq: 2.43700000 GHz          Trig: Free Run          #IF Gain: Low          #Atten: 30 dB          Avg/Hold: 100/100          Radio Std: None          Radio Device: BTS</p> <p>Ref Offset 7.04 dB          Ref 27.04 dBm          Mkr3 2.445054 GHz          -14.013 dBm</p> <p>Center 2.437 GHz          #Res BW 100 kHz          #VBW 300 kHz          Span 30 MHz          Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>13.6 dBm</td> </tr> <tr> <td>16.275 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>35.575 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>16.04 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	13.6 dBm	16.275 MHz			Transmit Freq Error	OBW Power	99.00 %	35.575 kHz	x dB	-6.00 dB	x dB Bandwidth			16.04 MHz		
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<p>802.11g/HCH</p>	<p>Agilent Spectrum Analyzer - Occupied BW          Center Freq 2.46200000 GHz          Center Freq: 2.46200000 GHz          Trig: Free Run          #IF Gain: Low          #Atten: 30 dB          Avg/Hold: 100/100          Radio Std: None          Radio Device: BTS</p> <p>Ref Offset 7.08 dB          Ref 27.08 dBm          Mkr3 2.470138 GHz          -9.3864 dBm</p> <p>Center 2.462 GHz          #Res BW 100 kHz          #VBW 300 kHz          Span 30 MHz          Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>13.5 dBm</td> </tr> <tr> <td>16.403 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-36.627 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>16.35 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	13.5 dBm	16.403 MHz			Transmit Freq Error	OBW Power	99.00 %	-36.627 kHz	x dB	-6.00 dB	x dB Bandwidth			16.35 MHz		
Occupied Bandwidth	Total Power	13.5 dBm																	
16.403 MHz																			
Transmit Freq Error	OBW Power	99.00 %																	
-36.627 kHz	x dB	-6.00 dB																	
x dB Bandwidth																			
16.35 MHz																			

<p>802.11n(HT20)/LC H</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.412000000 GHz</p> <p>Center Freq: 2.412000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.01 dB</p> <p>Ref: 27.01 dBm</p> <p>Mkr3 2.419761 GHz</p> <p>-8.1025 dBm</p> <p>Center 2.412 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>16.1 dBm</td> </tr> <tr> <td>17.597 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-30.022 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>15.58 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	16.1 dBm	17.597 MHz			Transmit Freq Error	OBW Power	99.00 %	-30.022 kHz	x dB	-6.00 dB	x dB Bandwidth			15.58 MHz		
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<p>802.11n(HT20)/MC H</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.437000000 GHz</p> <p>Center Freq: 2.437000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.04 dB</p> <p>Ref: 27.04 dBm</p> <p>Mkr3 2.44547 GHz</p> <p>-9.5180 dBm</p> <p>Center 2.437 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>15.4 dBm</td> </tr> <tr> <td>17.576 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-23.970 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>16.99 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	15.4 dBm	17.576 MHz			Transmit Freq Error	OBW Power	99.00 %	-23.970 kHz	x dB	-6.00 dB	x dB Bandwidth			16.99 MHz		
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<p>802.11n(HT20)/HC H</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.462000000 GHz</p> <p>Center Freq: 2.462000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.08 dB</p> <p>Ref: 27.08 dBm</p> <p>Mkr3 2.470315 GHz</p> <p>-10.619 dBm</p> <p>Center 2.462 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>14.0 dBm</td> </tr> <tr> <td>17.608 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-23.249 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>16.68 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	14.0 dBm	17.608 MHz			Transmit Freq Error	OBW Power	99.00 %	-23.249 kHz	x dB	-6.00 dB	x dB Bandwidth			16.68 MHz		
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<p>802.11n(HT40)/LC H</p>	 <p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.422000000 GHz Center Freq: 2.422000000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7 dB Ref: 27.00 dBm Mkr3 2.439608 GHz -11.660 dBm</p> <p>Center 2.422 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>16.2 dBm</td> </tr> <tr> <td>36.022 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-88.340 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>35.39 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	16.2 dBm	36.022 MHz			Transmit Freq Error	OBW Power	99.00 %	-88.340 kHz	x dB	-6.00 dB	x dB Bandwidth			35.39 MHz		
Occupied Bandwidth	Total Power	16.2 dBm																	
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Transmit Freq Error	OBW Power	99.00 %																	
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x dB Bandwidth																			
35.39 MHz																			
<p>802.11n(HT40)/MC H</p>	 <p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7.04 dB Ref: 27.04 dBm Mkr3 2.454458 GHz -10.794 dBm</p> <p>Center 2.437 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>15.7 dBm</td> </tr> <tr> <td>35.978 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-98.652 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>35.11 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	15.7 dBm	35.978 MHz			Transmit Freq Error	OBW Power	99.00 %	-98.652 kHz	x dB	-6.00 dB	x dB Bandwidth			35.11 MHz		
Occupied Bandwidth	Total Power	15.7 dBm																	
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<p>802.11n(HT40)/HC H</p>	 <p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.452000000 GHz Center Freq: 2.452000000 GHz Trig: Free Run Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7.07 dB Ref: 27.07 dBm Mkr3 2.468511 GHz -14.387 dBm</p> <p>Center 2.452 GHz #Res BW 100 kHz #VBW 300 kHz Span 60 MHz Sweep 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>14.9 dBm</td> </tr> <tr> <td>36.126 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-66.549 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>33.16 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	14.9 dBm	36.126 MHz			Transmit Freq Error	OBW Power	99.00 %	-66.549 kHz	x dB	-6.00 dB	x dB Bandwidth			33.16 MHz		
Occupied Bandwidth	Total Power	14.9 dBm																	
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Transmit Freq Error	OBW Power	99.00 %																	
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x dB Bandwidth																			
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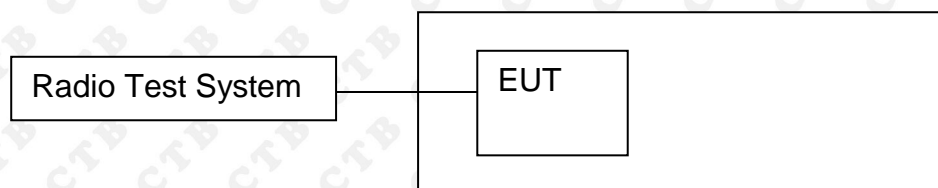


<p>802.11ax(HT20)/LC H</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.412000000 GHz</p> <p>Center Freq: 2.412000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.01 dB</p> <p>Ref: 27.01 dBm</p> <p>Mkr3 2.420379 GHz</p> <p>-9.2133 dBm</p> <p>Center 2.412 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <p>Occupied Bandwidth 18.851 MHz</p> <p>Total Power 15.9 dBm</p> <p>Transmit Freq Error -35.853 kHz</p> <p>OB Power 99.00 %</p> <p>x dB Bandwidth 16.83 MHz</p> <p>x dB -6.00 dB</p>
<p>802.11ax(HT20)/M CH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.437000000 GHz</p> <p>Center Freq: 2.437000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.04 dB</p> <p>Ref: 27.04 dBm</p> <p>Mkr3 2.445161 GHz</p> <p>-9.1001 dBm</p> <p>Center 2.437 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <p>Occupied Bandwidth 18.850 MHz</p> <p>Total Power 15.1 dBm</p> <p>Transmit Freq Error -58.778 kHz</p> <p>OB Power 99.00 %</p> <p>x dB Bandwidth 16.44 MHz</p> <p>x dB -6.00 dB</p>
<p>802.11ax(HT20)/H CH</p>	<p>Agilent Spectrum Analyzer - Occupied BW</p> <p>Center Freq: 2.462000000 GHz</p> <p>Center Freq: 2.462000000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: 100/100</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 7.08 dB</p> <p>Ref: 27.08 dBm</p> <p>Mkr3 2.470803 GHz</p> <p>-10.311 dBm</p> <p>Center 2.462 GHz</p> <p>#Res BW 100 kHz</p> <p>#VBW 300 kHz</p> <p>Span 30 MHz</p> <p>Sweep 2.933 ms</p> <p>Occupied Bandwidth 18.806 MHz</p> <p>Total Power 13.7 dBm</p> <p>Transmit Freq Error -49.527 kHz</p> <p>OB Power 99.00 %</p> <p>x dB Bandwidth 17.71 MHz</p> <p>x dB -6.00 dB</p>

<p>802.11ax(HT40)/LC H</p>	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.422000000 GHz Center Freq: 2.422000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7.04 dB Ref: 27.00 dBm Mkr3: 2.438364 GHz -12.513 dBm</p> <p>Center: 2.422 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 60 MHz Sweep: 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>16.0 dBm</td> </tr> <tr> <td>37.546 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-74.457 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>32.88 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	16.0 dBm	37.546 MHz			Transmit Freq Error	OBW Power	99.00 %	-74.457 kHz	x dB	-6.00 dB	x dB Bandwidth			32.88 MHz		
Occupied Bandwidth	Total Power	16.0 dBm																	
37.546 MHz																			
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x dB Bandwidth																			
32.88 MHz																			
<p>802.11ax(HT40)/M CH</p>	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.437000000 GHz Center Freq: 2.437000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7.04 dB Ref: 27.04 dBm Mkr3: 2.455117 GHz -13.939 dBm</p> <p>Center: 2.437 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 60 MHz Sweep: 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>15.6 dBm</td> </tr> <tr> <td>37.552 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-78.496 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>36.39 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	15.6 dBm	37.552 MHz			Transmit Freq Error	OBW Power	99.00 %	-78.496 kHz	x dB	-6.00 dB	x dB Bandwidth			36.39 MHz		
Occupied Bandwidth	Total Power	15.6 dBm																	
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x dB Bandwidth																			
36.39 MHz																			
<p>802.11ax(HT40)/H CH</p>	<p>Agilent Spectrum Analyzer - Occupied BW Center Freq: 2.452000000 GHz Center Freq: 2.452000000 GHz Trig: Free Run #Atten: 30 dB Avg/Hold: 100/100 Radio Std: None Radio Device: BTS</p> <p>Ref Offset: 7.07 dB Ref: 27.07 dBm Mkr3: 2.470124 GHz -13.234 dBm</p> <p>Center: 2.452 GHz #Res BW: 100 kHz #VBW: 300 kHz Span: 60 MHz Sweep: 5.8 ms</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Total Power</td> <td>14.8 dBm</td> </tr> <tr> <td>37.613 MHz</td> <td></td> <td></td> </tr> <tr> <td>Transmit Freq Error</td> <td>OBW Power</td> <td>99.00 %</td> </tr> <tr> <td>-141.92 kHz</td> <td>x dB</td> <td>-6.00 dB</td> </tr> <tr> <td>x dB Bandwidth</td> <td></td> <td></td> </tr> <tr> <td>36.53 MHz</td> <td></td> <td></td> </tr> </table>	Occupied Bandwidth	Total Power	14.8 dBm	37.613 MHz			Transmit Freq Error	OBW Power	99.00 %	-141.92 kHz	x dB	-6.00 dB	x dB Bandwidth			36.53 MHz		
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37.613 MHz																			
Transmit Freq Error	OBW Power	99.00 %																	
-141.92 kHz	x dB	-6.00 dB																	
x dB Bandwidth																			
36.53 MHz																			

## 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

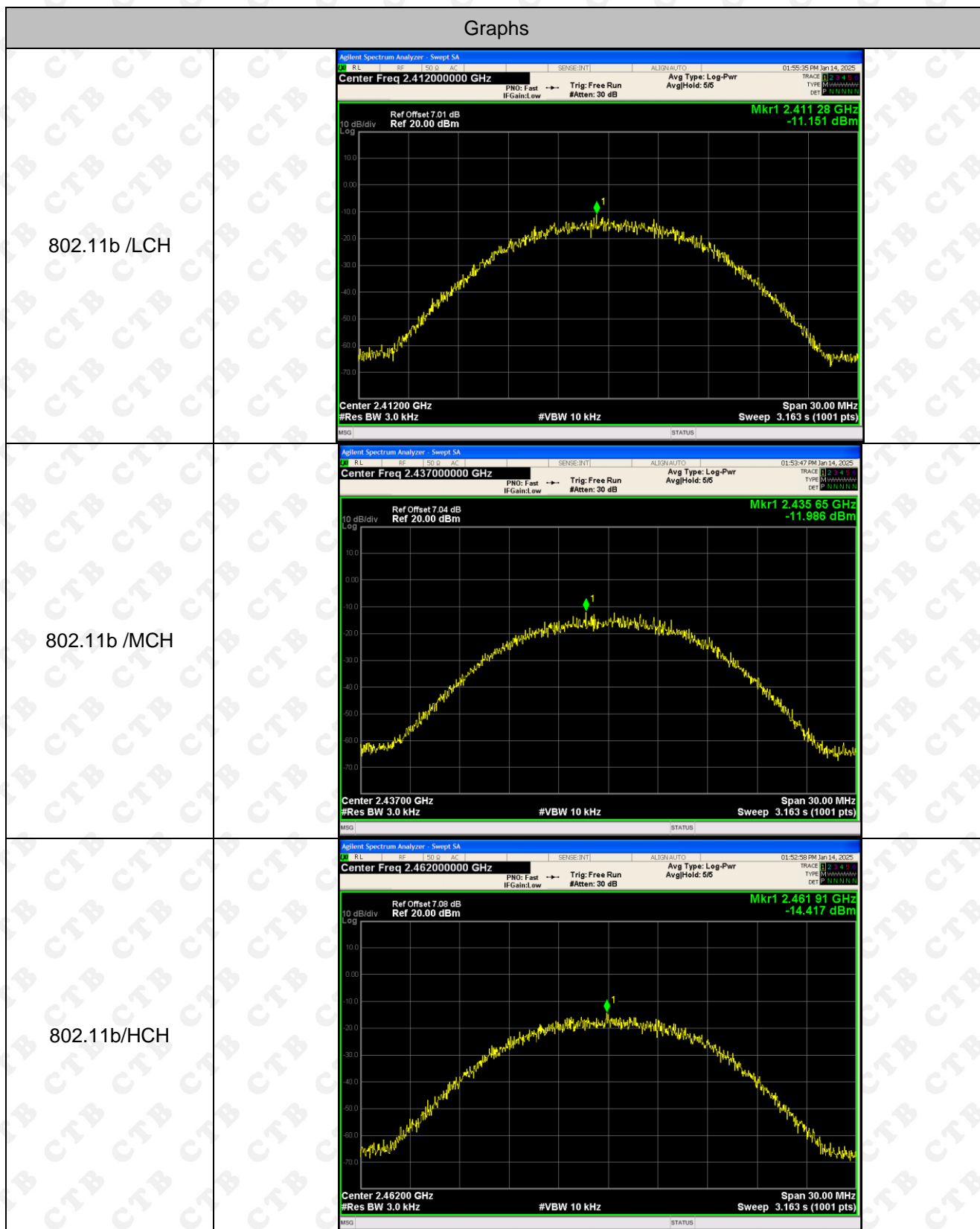
### 11.3 Test procedure

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.	Power Spectral Density [dBm /3kHz]	Limit(8 dBm (in any 3kHz))	Verdict
802.11b	LCH	-11.151	8	PASS
	MCH	-11.986	8	PASS
	HCH	-14.417	8	PASS
802.11g	LCH	-15.951	8	PASS
	MCH	-16.714	8	PASS
	HCH	-19.185	8	PASS
802.11n(H T20)	LCH	-14.898	8	PASS
	MCH	-16.731	8	PASS
	HCH	-17.717	8	PASS
802.11n(H T40)	LCH	-18.558	8	PASS
	MCH	-19.830	8	PASS
	HCH	-19.944	8	PASS
802.11ax(HT20)	LCH	-17.840	8	PASS
	MCH	-18.030	8	PASS
	HCH	-19.849	8	PASS
802.11ax(HT40)	LCH	-20.776	8	PASS
	MCH	-20.890	8	PASS
	HCH	-20.527	8	PASS

## Test Graph



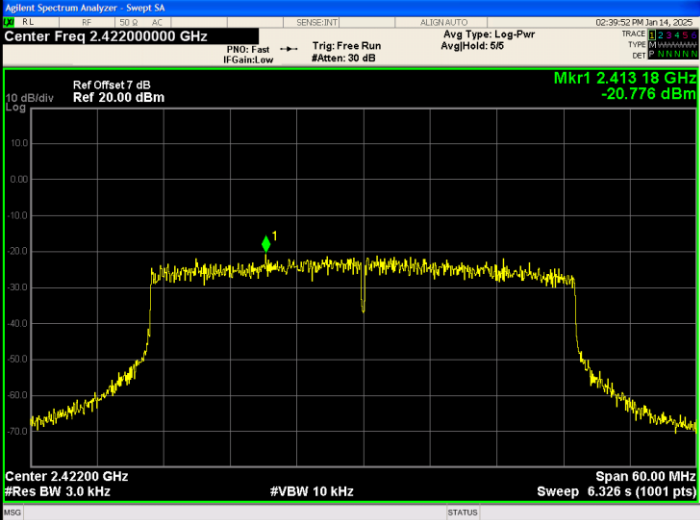
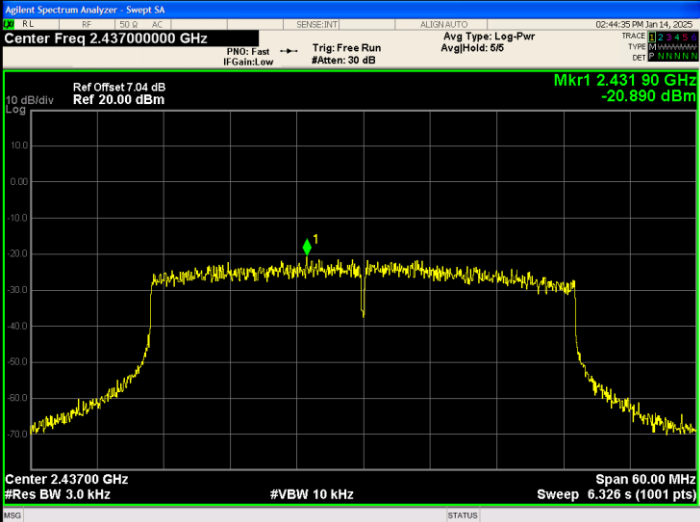
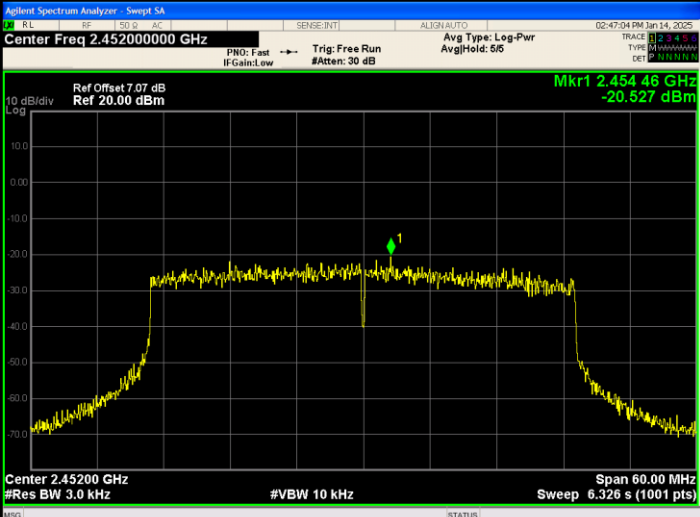
<p>802.11g/LCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA Center Freq 2.41200000 GHz Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.416 95 GHz -15.951 dBm Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>
<p>802.11g/MCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA Center Freq 2.43700000 GHz Ref Offset 7.04 dB Ref 20.00 dBm Mkr1 2.439 43 GHz -16.714 dBm Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>
<p>802.11g/HCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA Center Freq 2.46200000 GHz Ref Offset 7.08 dB Ref 20.00 dBm Mkr1 2.464 46 GHz -19.185 dBm Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>

<p>802.11n(HT20)/LCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA          Center Freq 2.41200000 GHz          Ref Offset 7.01 dB          Ref 20.00 dBm          Mkr1 2.408 19 GHz          -14.898 dBm          Center 2.41200 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 30.00 MHz          Sweep 3.163 s (1001 pts)</p>
<p>802.11n(HT20)/MCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA          Center Freq 2.43700000 GHz          Ref Offset 7.04 dB          Ref 20.00 dBm          Mkr1 2.432 92 GHz          -16.731 dBm          Center 2.43700 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 30.00 MHz          Sweep 3.163 s (1001 pts)</p>
<p>802.11n(HT20)/HCH</p>	<p>Agilent Spectrum Analyzer - Sweep SA          Center Freq 2.46200000 GHz          Ref Offset 7.08 dB          Ref 20.00 dBm          Mkr1 2.460 74 GHz          -17.717 dBm          Center 2.46200 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 30.00 MHz          Sweep 3.163 s (1001 pts)</p>

<p>802.11n(HT40)/LCH</p>	<p>Agilent Spectrum Analyzer - Swept SA          Center Freq 2.42200000 GHz          Ref Offset 7 dB          Ref 20.00 dBm          Mkr1 2.41978 GHz          -18.558 dBm          Center 2.42200 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 60.00 MHz          Sweep 6.326 s (1001 pts)</p>
<p>802.11n(HT40)/MCH</p>	<p>Agilent Spectrum Analyzer - Swept SA          Center Freq 2.43700000 GHz          Ref Offset 7.04 dB          Ref 20.00 dBm          Mkr1 2.43286 GHz          -19.830 dBm          Center 2.43700 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 60.00 MHz          Sweep 6.326 s (1001 pts)</p>
<p>802.11n(HT40)/HCH</p>	<p>Agilent Spectrum Analyzer - Swept SA          Center Freq 2.45200000 GHz          Ref Offset 7.07 dB          Ref 20.00 dBm          Mkr1 2.44792 GHz          -19.944 dBm          Center 2.45200 GHz          #Res BW 3.0 kHz          #VBW 10 kHz          Span 60.00 MHz          Sweep 6.326 s (1001 pts)</p>



<p>802.11ax(HT20)/LC H</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.41200000 GHz Ref Offset 7.01 dB Ref 20.00 dBm Mkr1 2.414 79 GHz -17.840 dBm Center 2.41200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>
<p>802.11ax(HT20)/MC H</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.43700000 GHz Ref Offset 7.04 dB Ref 20.00 dBm Mkr1 2.435 71 GHz -18.030 dBm Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>
<p>802.11ax(HT20)/HC H</p>	<p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.46200000 GHz Ref Offset 7.08 dB Ref 20.00 dBm Mkr1 2.462 42 GHz -19.849 dBm Center 2.46200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 30.00 MHz Sweep 3.163 s (1001 pts)</p>

<p>802.11ax(HT40)/LC H</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.42200000 GHz Mkr1 2.41318 GHz -20.776 dBm Center 2.42200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 60.00 MHz Sweep 6.326 s (1001 pts)</p>
<p>802.11ax(HT40)/MC H</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.43700000 GHz Mkr1 2.43190 GHz -20.890 dBm Center 2.43700 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 60.00 MHz Sweep 6.326 s (1001 pts)</p>
<p>802.11ax(HT40)/HC H</p>	 <p>Agilent Spectrum Analyzer - Swept SA Center Freq 2.45200000 GHz Mkr1 2.45446 GHz -20.527 dBm Center 2.45200 GHz #Res BW 3.0 kHz #VBW 10 kHz Span 60.00 MHz Sweep 6.326 s (1001 pts)</p>

## 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 FPC antenna and no consideration of replacement. The best case gain of the antenna is 2.64dBi.

## 13. EUT TEST SETUP PHOTOGRAPHS

### Radiated Emission

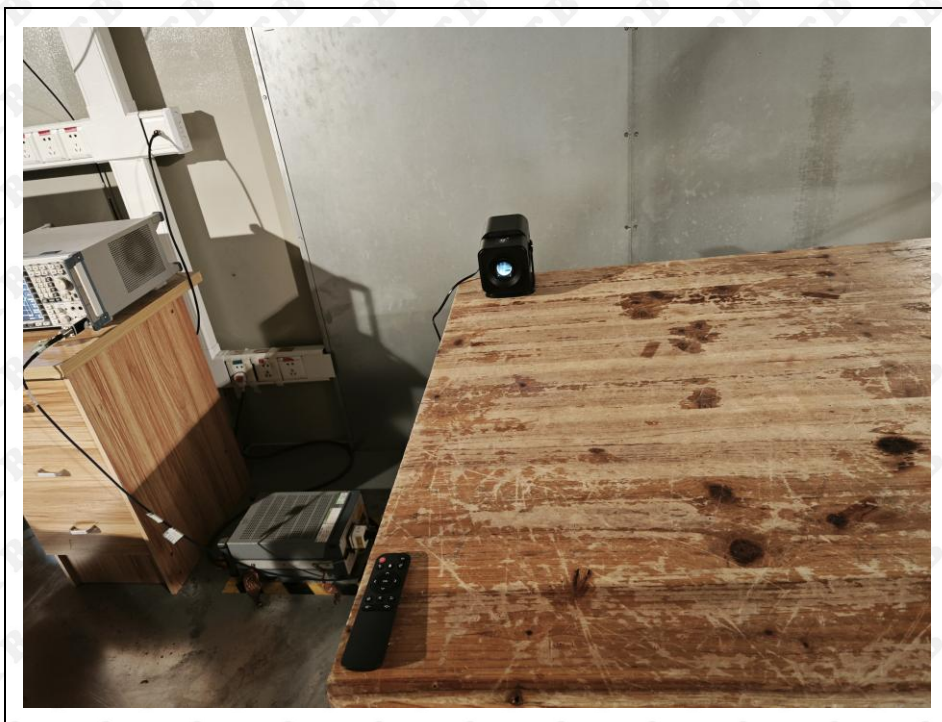
Below 1G



Above 1G



Conducted Emission



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