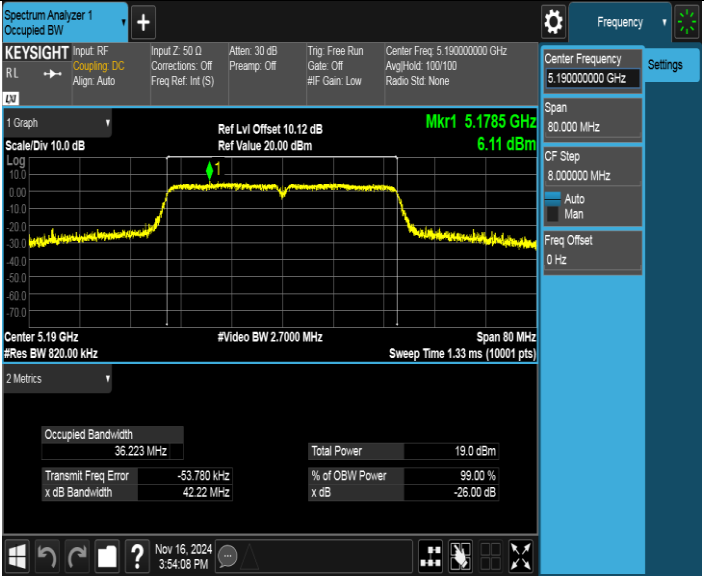
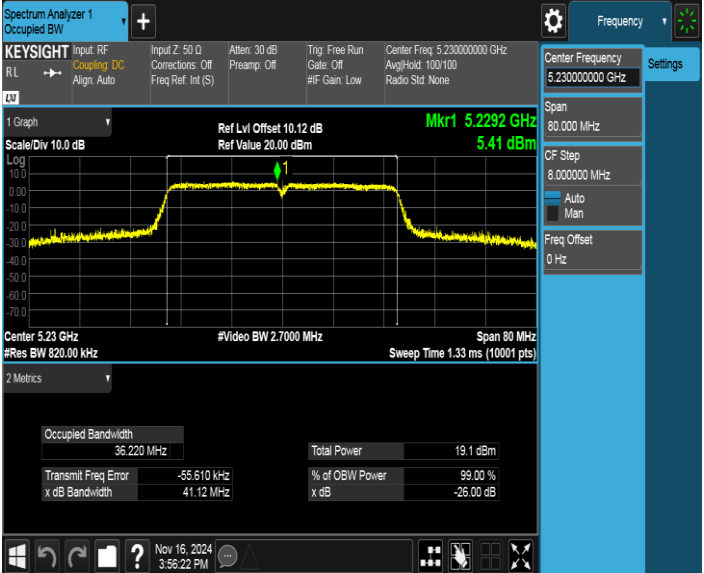
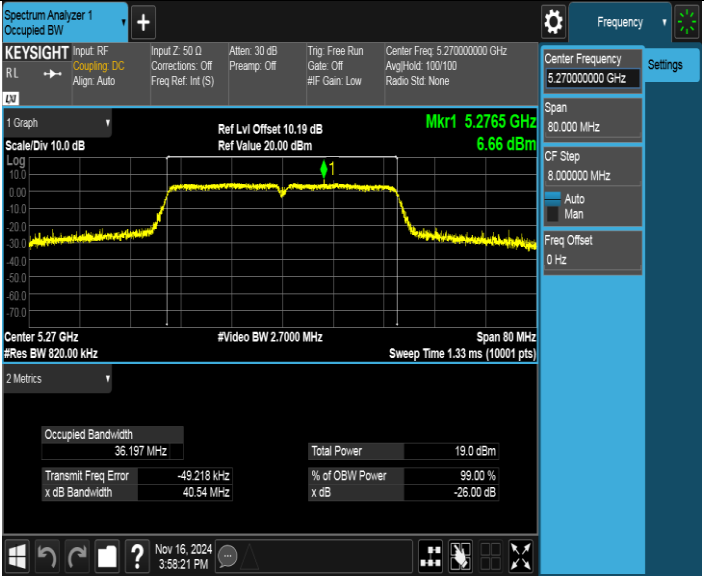
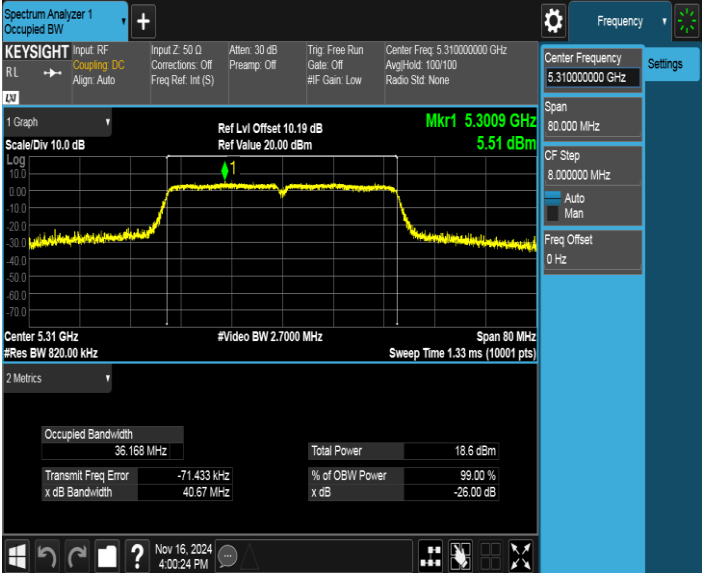
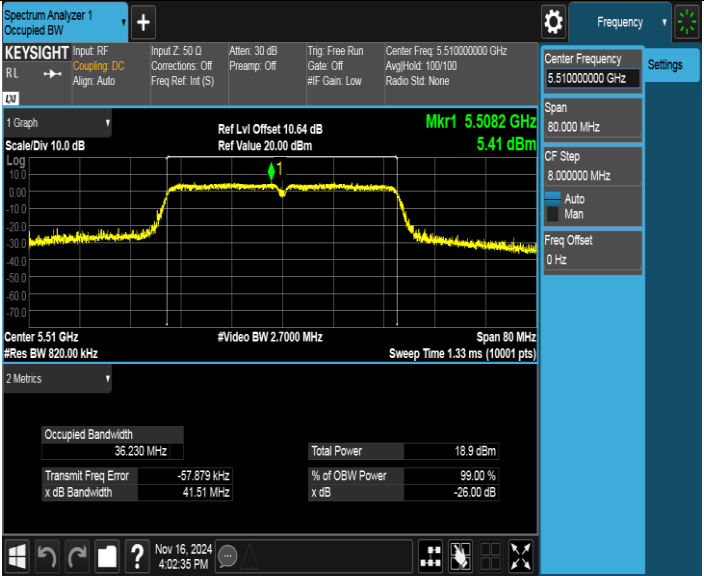


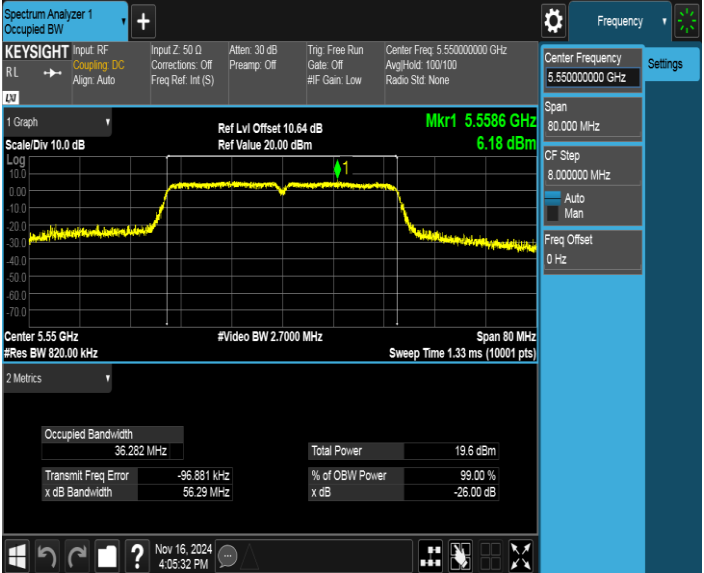
Test Mode	Test Channel	Verdict
11ac VHT40	5190	PASS
		

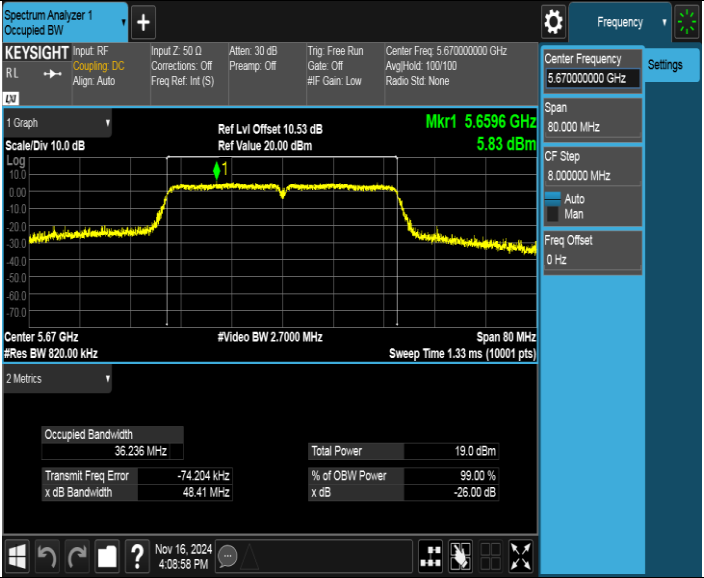
Test Mode	Test Channel	Verdict
11ac VHT40	5230	PASS
		

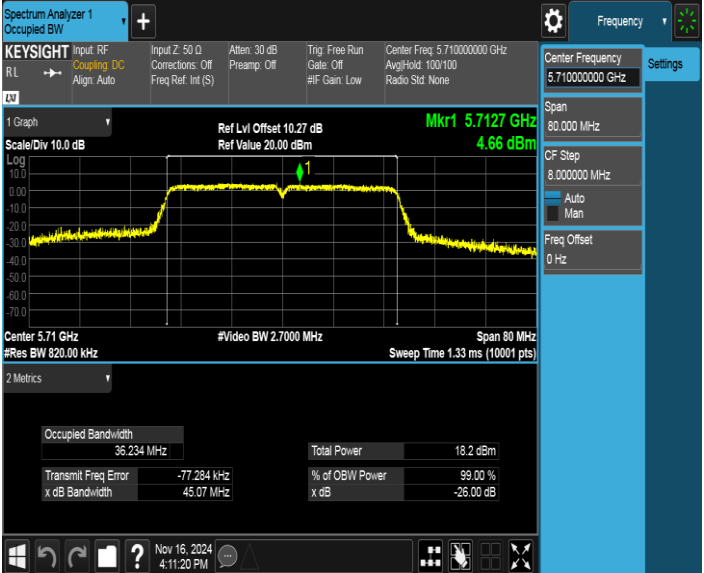
Test Mode	Test Channel	Verdict
11ac VHT40	5270	PASS
		

Test Mode	Test Channel	Verdict
11ac VHT40	5310	PASS
		

Test Mode	Test Channel	Verdict
11ac VHT40	5510	PASS
		

Test Mode	Test Channel	Verdict
11ac VHT40	5550	PASS
		

Test Mode	Test Channel	Verdict
11ac VHT40	5670	PASS
 <p>Spectrum Analyzer 1 KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 5.67000000 GHz R/L → Coupling: DC Corrections: Off Freq Ref: Int (S) Preamp: Off Gate: Off Avg/Hold: 100/100 Radio Std: None Align: Auto 1 Graph Ref Lvl Offset 10.53 dB Mkr1 5.6596 GHz Scale/Div 10.0 dB Ref Value 20.00 dBm 5.83 dBm Log 10.0 Center 5.67 GHz #Video BW 2.7000 MHz Span 80 MHz #Res BW 820.00 kHz Sweep Time 1.33 ms (10001 pts) 2 Metrics Occupied Bandwidth 36.236 MHz Total Power 19.0 dBm Transmit Freq Error -74.204 kHz % of OBIW Power 99.00 % x dB Bandwidth 48.41 MHz x dB -26.00 dB Nov 16, 2024 4:08:58 PM</p>		

Test Mode	Test Channel	Verdict
11ac VHT40	5710	PASS
 <p>Spectrum Analyzer 1 KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 5.71000000 GHz R/L → Coupling: DC Corrections: Off Freq Ref: Int (S) Preamp: Off Gate: Off Avg/Hold: 100/100 Radio Std: None Align: Auto 1 Graph Ref Lvl Offset 10.27 dB Mkr1 5.7127 GHz Scale/Div 10.0 dB Ref Value 20.00 dBm 4.66 dBm Log 10.0 Center 5.71 GHz #Video BW 2.7000 MHz Span 80 MHz #Res BW 820.00 kHz Sweep Time 1.33 ms (10001 pts) 2 Metrics Occupied Bandwidth 36.234 MHz Total Power 18.2 dBm Transmit Freq Error -77.284 kHz % of OBIW Power 99.00 % x dB Bandwidth 45.07 MHz x dB -26.00 dB Nov 16, 2024 4:11:20 PM</p>		

Test Mode	Test Channel	Verdict
11ac VHT40	5755	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF

Coupling DC

Align: Auto

Input Z: 50 Ω

Corrections Off

Freq Ref: Int (S)

Atten: 30 dB

Preamp: Off

Trig: Free Run

Gate: Off

#F Gain: Low

Center Freq: 5.755000000 GHz

Avg/Hold: 100/100

Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.27 dB

Ref Value 20.00 dBm

Mkr1 5.7465 GHz

6.54 dBm

Center 5.755 GHz

#Res BW 820.00 kHz

#Video BW 2.7000 MHz

Sweep Time 1.33 ms (10001 pts)

Span 80 MHz

2 Metrics

Occupied Bandwidth

36.391 MHz

Total Power

20.3 dBm

Transmit Freq Error

-135.02 kHz

% of OBW Power

99.00 %

x dB Bandwidth

60.45 MHz

x dB

-26.00 dB

Frequency

Settings

Center Frequency

5.755000000 GHz

Span

80.000 MHz

CF Step

8.0000000 MHz

Auto

Man

Freq Offset

0 Hz

Nov 16, 2024

4:17:17 PM

Test Mode	Test Channel	Verdict
11ac VHT40	5795	PASS
<div><div><div><div><div>Spectrum Analyzer 1</div><div>Occupied BW</div></div><div><div><div>+</div></div><div><div>KEYSIGHT</div><div>Input: RF</div><div>Coupling DC</div><div>Align: Auto</div></div><div><div>Input Z: 50 Ω</div><div>Corrections: Off</div><div>Freq Ref: Int (S)</div></div><div><div>Atten: 30 dB</div><div>Preamp: Off</div><div></div></div><div><div>Trig: Free Run</div><div>Gate: Off</div><div>#F Gain: Low</div></div><div><div>Center Freq: 5.795000000 GHz</div><div>Avg/Hold: 100/100</div><div>Radio Std: None</div></div></div></div><div><div>1 Graph</div><div>Scale/Div 10.0 dB</div><div>Log</div><div>Ref Lvl Offset 10.27 dB</div><div>Ref Value 20.00 dBm</div><div>Mkr1 5.7899 GHz</div><div>6.21 dBm</div><div>Center 5.795 GHz</div><div>#Res BW 820.00 kHz</div><div>#Video BW 2.7000 MHz</div><div>Sweep Time 1.33 ms (10001 pts)</div><div>Span 80 MHz</div></div><div><div>2 Metrics</div><div>Occupied Bandwidth</div><div>36.325 MHz</div><div>Total Power</div><div>19.7 dBm</div><div>Transmit Freq Error</div><div>-55.536 kHz</div><div>% of OBIW Power</div><div>99.00 %</div><div>x dB Bandwidth</div><div>59.24 MHz</div><div>x dB</div><div>-26.00 dB</div></div></div><div><div>Frequency</div><div>Settings</div><div>Center Frequency</div><div>5.795000000 GHz</div><div>Span</div><div>80.000 MHz</div><div>CF Step</div><div>8.0000000 MHz</div><div>Auto</div><div>Man</div><div>Freq Offset</div><div>0 Hz</div></div><div><div>Nov 16, 2024</div><div>4:19:53 PM</div></div></div>		

Test Mode	Test Channel	Verdict
11ax HE20	5180	PASS
<div><div><div><div><div>Spectrum Analyzer 1</div><div>Occupied BW</div></div><div><div><div>+</div></div><div><div>KEYSIGHT</div><div>Input: RF</div><div>Coupling DC</div><div>Align: Auto</div></div><div><div>Input Z: 50 Ω</div><div>Corrections: Off</div><div>Freq Ref: Int (S)</div></div><div><div>Atten: 30 dB</div><div>Preamp: Off</div><div></div></div><div><div>Trig: Free Run</div><div>Gate: Off</div><div>#F Gain: Low</div></div><div><div>Center Freq: 5.18000000 GHz</div><div>Avg/Hold: 100/100</div><div>Radio Std: None</div></div></div></div><div><div>1 Graph</div><div>Scale/Div 10.0 dB</div><div>Log</div><div>10.0</div><div>0.00</div><div>-10.0</div><div>-20.0</div><div>-30.0</div><div>-40.0</div><div>-50.0</div><div>-60.0</div><div>-70.0</div></div><div><div>Ref Lvl Offset 10.12 dB</div><div>Ref Value 20.00 dBm</div><div>Mkr1 5.1767 GHz</div><div>6.45 dBm</div></div><div><div>Center 5.18 GHz</div><div>#Video BW 1.3000 MHz</div><div>Span 40 MHz</div><div>#Res BW 430.00 kHz</div><div>Sweep Time 1.33 ms (10001 pts)</div></div><div><div>2 Metrics</div><div>Occupied Bandwidth</div><div>18.880 MHz</div><div>Total Power</div><div>19.0 dBm</div><div>Transmit Freq Error</div><div>-36.534 kHz</div><div>% of OBW Power</div><div>99.00 %</div><div>x dB Bandwidth</div><div>20.57 MHz</div><div>x dB</div><div>-26.00 dB</div></div><div><div>Frequency</div><div>Settings</div><div>Center Frequency</div><div>5.18000000 GHz</div><div>Span</div><div>40.000 MHz</div><div>CF Step</div><div>4.000000 MHz</div><div>Auto</div><div>Man</div><div>Freq Offset</div><div>0 Hz</div></div></div><div><div>Nov 16, 2024</div><div>4:32:07 PM</div></div></div>		

Test Mode	Test Channel	Verdict
11ax HE20	5200	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
R/L →

Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#F Gain: Low

Center Freq: 5.20000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.12 dB
Ref Value 20.00 dBm

Mkr1 5.2038 GHz
6.89 dBm

Center 5.2 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Sweep Time 1.33 ms (10001 pts)

Span 40 MHz

2 Metrics

Occupied Bandwidth
18.892 MHz

Total Power
19.3 dBm

Transmit Freq Error
-26.225 kHz

% of OBIW Power
99.00 %

x dB Bandwidth
22.22 MHz

x dB
-26.00 dB

Frequency

Settings

Center Frequency
5.200000000 GHz

Span
40.000 MHz

CF Step
4.0000000 MHz

Auto
Man

Freq Offset
0 Hz

Nov 16, 2024
4:34:09 PM

Test Mode	Test Channel	Verdict
11ax HE20	5240	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 5.24000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.12 dB
Ref Value 20.00 dBm

Mkr1 5.2455 GHz
6.40 dBm

Center 5.24 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Span 40 MHz
Sweep Time 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth
18.907 MHz

Total Power
18.9 dBm

Transmit Freq Error
-34.909 kHz

% of OBIW Power
99.00 %

x dB Bandwidth
20.61 MHz

x dB
-26.00 dB

Frequency

Settings

Center Frequency
5.24000000 GHz

Span
40.000 MHz

CF Step
4.000000 MHz

Auto
Man

Freq Offset
0 Hz

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4:36:10 PM

Test Mode	Test Channel	Verdict
11ax HE20	5260	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
R/L →

Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 5.26000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.12 dB
Ref Value 20.00 dBm

Mkr1 5.2677 GHz
7.22 dBm

Center 5.26 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Span 40 MHz
Sweep Time 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth
18.875 MHz

Total Power
19.3 dBm

Transmit Freq Error
-46.445 kHz

% of OBIW Power
99.00 %

x dB Bandwidth
20.61 MHz

x dB
-26.00 dB

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4:39:28 PM

Frequency

Settings

Center Frequency
5.260000000 GHz

Span
40.000 MHz

CF Step
4.000000 MHz

Auto
Man

Freq Offset
0 Hz

Test Mode	Test Channel	Verdict
11ax HE20	5280	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF

Coupling DC

Align: Auto

Input Z: 50 Ω

Corrections: Off

Freq Ref: Int (S)

Atten: 30 dB

Preamp: Off

Trig: Free Run

Gate: Off

#F Gain: Low

Center Freq: 5.28000000 GHz

Avg/Hold: 100/100

Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.19 dB

Ref Value 20.00 dBm

Mkr1 5.2849 GHz

6.62 dBm

Center 5.28 GHz

#Video BW 1.3000 MHz

Span 40 MHz

#Res BW 430.00 kHz

Sweep Time 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth

18.899 MHz

Total Power

19.3 dBm

Transmit Freq Error

-45.925 kHz

% of OBW Power

99.00 %

x dB Bandwidth

20.69 MHz

x dB

-26.00 dB

Frequency

Settings

Center Frequency

5.28000000 GHz

Span

40.000 MHz

CF Step

4.000000 MHz

Auto

Man

Freq Offset

0 Hz

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4:42:19 PM

Test Mode	Test Channel	Verdict
11ax HE20	5320	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
R/L →

Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 5.32000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.19 dB
Ref Value 20.00 dBm

Mkr1 5.3150 GHz
6.65 dBm

Center 5.32 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Sweep Time 1.33 ms (10001 pts)

Span 40 MHz

2 Metrics

Occupied Bandwidth

18.854 MHz

Total Power

18.8 dBm

Transmit Freq Error

-53.425 kHz

% of OBIW Power

99.00 %

x dB Bandwidth

20.76 MHz

x dB

-26.00 dB

Frequency

Settings

Center Frequency

5.320000000 GHz

Span

40.000 MHz

CF Step

4.000000 MHz

Auto

Man

Freq Offset

0 Hz

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4:44:27 PM

Test Mode	Test Channel	Verdict
11ax HE20	5500	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
R/L → Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 5.50000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

10.0
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0

Ref Lvl Offset 10.64 dB
Ref Value 20.00 dBm

Mkr1 5.4951 GHz
7.06 dBm

Center 5.5 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Sweep Time 1.33 ms (10001 pts)

Span 40 MHz

2 Metrics

Occupied Bandwidth
18.881 MHz

Total Power
19.5 dBm

Transmit Freq Error
-44.046 kHz

% of OBIW Power
99.00 %

x dB Bandwidth
20.66 MHz

x dB
-26.00 dB

Frequency

Center Frequency
5.50000000 GHz

Span
40.000 MHz

CF Step
4.0000000 MHz

Auto
Man

Freq Offset
0 Hz

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4:48:09 PM

Test Mode	Test Channel	Verdict
11ax HE20	5580	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
R/L →

Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#IF Gain: Low

Center Freq: 5.580000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

10.0
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0

Ref Lvl Offset 10.64 dB
Ref Value 20.00 dBm

Mkr1 5.5753 GHz
6.67 dBm

Center 5.58 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Sweep Time 1.33 ms (10001 pts)

Span 40 MHz

2 Metrics

Occupied Bandwidth
18.894 MHz

Total Power
19.0 dBm

Transmit Freq Error
x dB Bandwidth

-58.352 kHz
21.05 MHz

% of OBIW Power
x dB

99.00 %
-26.00 dB

Frequency

Center Frequency
5.580000000 GHz

Span
40.000 MHz

CF Step
4.000000 MHz

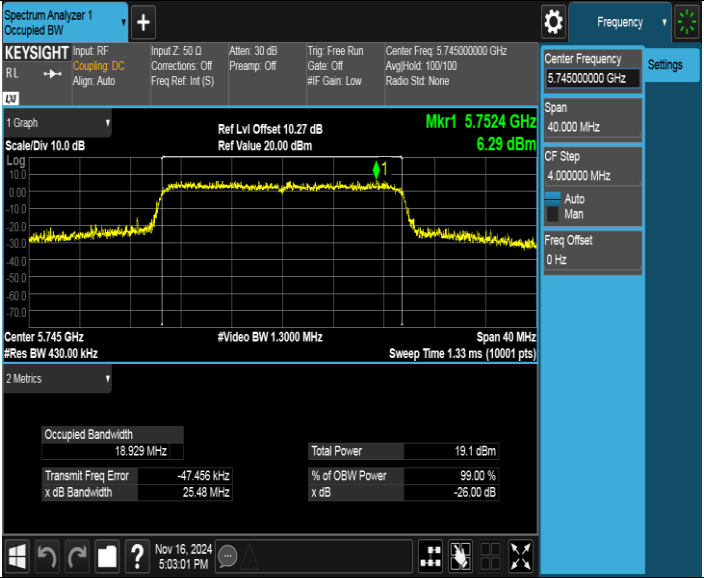
Auto
Man

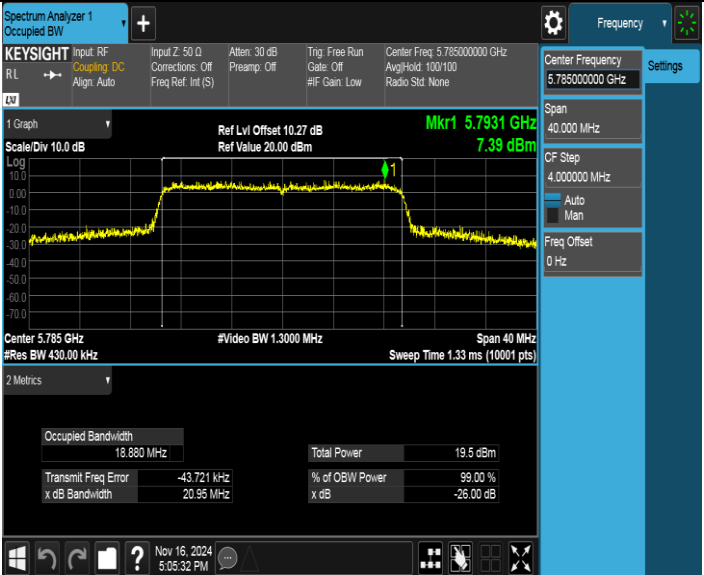
Freq Offset
0 Hz

Nov 16, 2024
4:50:19 PM

Test Mode	Test Channel	Verdict
11ax HE20	5700	PASS
<div><div><div><div><div>Spectrum Analyzer 1</div><div>Occupied BW</div></div><div><div><div>KEYSIGHT</div><div>Input: RF</div><div>Coupling DC</div><div>Align: Auto</div></div><div><div>Input Z: 50 Ω</div><div>Corrections: Off</div><div>Freq Ref: Int (S)</div></div><div><div>Atten: 30 dB</div><div>Preamp: Off</div><div></div></div><div><div>Trig: Free Run</div><div>Gate: Off</div><div>#F Gain: Low</div></div><div><div>Center Freq: 5.700000000 GHz</div><div>Avg/Hold: 100/100</div><div>Radio Std: None</div></div></div></div><div><div>Center Frequency</div><div>5.700000000 GHz</div></div><div><div>Span</div><div>40.000 MHz</div></div><div><div>CF Step</div><div>4.0000000 MHz</div></div><div><div>Freq Offset</div><div>0 Hz</div></div><div><div>1 Graph</div><div>Scale/Div 10.0 dB</div><div>Log</div><div>Ref Lvl Offset 10.53 dB</div><div>Ref Value 20.00 dBm</div><div>Mkr1 5.6929 GHz</div><div>6.35 dBm</div><div>Center 5.7 GHz</div><div>#Res BW 430.00 kHz</div><div>#Video BW 1.3000 MHz</div><div>Span 40 MHz</div><div>Sweep Time 1.33 ms (10001 pts)</div><div>2 Metrics</div><div><div>Occupied Bandwidth</div><div>18.874 MHz</div><div>Total Power</div><div>18.5 dBm</div><div>Transmit Freq Error</div><div>-37.981 kHz</div><div>% of OBW Power</div><div>99.00 %</div><div>x dB Bandwidth</div><div>20.71 MHz</div><div>x dB</div><div>-26.00 dB</div></div><div><div>Nov 16, 2024</div><div>4:54:46 PM</div></div></div></div></div>		

Test Mode	Test Channel	Verdict
11ax HE20	5720	PASS
<div><div><div><div><div>Spectrum Analyzer 1</div><div>Occupied BW</div></div><div><div><div>KEYSIGHT</div><div>Input: RF</div><div>Coupling DC</div><div>Align: Auto</div></div><div><div>Input Z: 50 Ω</div><div>Corrections: Off</div><div>Freq Ref: Int (S)</div></div><div><div>Atten: 30 dB</div><div>Preamp: Off</div><div></div></div><div><div>Trig: Free Run</div><div>Gate: Off</div><div>#F Gain: Low</div></div><div><div>Center Freq: 5.720000000 GHz</div><div>Avg/Hold: 100/100</div><div>Radio Std: None</div></div></div></div><div><div>1 Graph</div><div>Scale/Div 10.0 dB</div><div>Log</div><div>Ref Lvl Offset 10.27 dB</div><div>Ref Value 20.00 dBm</div><div>Mkr1 5.7167 GHz</div><div>5.80 dBm</div><div>Center 5.72 GHz</div><div>#Res BW 430.00 kHz</div><div>#Video BW 1.3000 MHz</div><div>Span 40 MHz</div><div>Sweep Time 1.33 ms (10001 pts)</div><div>2 Metrics</div><div><div>Occupied Bandwidth</div><div>18.866 MHz</div><div>Total Power</div><div>18.1 dBm</div><div>Transmit Freq Error</div><div>-63.151 kHz</div><div>% of OBW Power</div><div>99.00 %</div><div>x dB Bandwidth</div><div>20.78 MHz</div><div>x dB</div><div>-26.00 dB</div></div></div><div><div>Frequency</div><div>Settings</div><div>Center Frequency</div><div>5.720000000 GHz</div><div>Span</div><div>40.000 MHz</div><div>CF Step</div><div>4.0000000 MHz</div><div>Auto</div><div>Man</div><div>Freq Offset</div><div>0 Hz</div></div><div><div>Nov 16, 2024</div><div>4:57:30 PM</div></div></div></div>		

Test Mode	Test Channel	Verdict
11ax HE20	5745	PASS
		

Test Mode	Test Channel	Verdict
11ax HE20	5785	PASS
		

Test Mode	Test Channel	Verdict
11ax HE20	5825	PASS

Spectrum Analyzer 1
Occupied BW

+

Settings

KEYSIGHT

Input: RF
Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#F Gain: Low

Center Freq: 5.825000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.36 dB
Ref Value 20.00 dBm

Mkr1 5.8166 GHz
6.56 dBm

Center 5.825 GHz
#Res BW 430.00 kHz

#Video BW 1.3000 MHz

Span 40 MHz
Sweep Time 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth
18.930 MHz

Total Power
18.8 dBm

Transmit Freq Error
x dB Bandwidth

-58.183 kHz
24.50 MHz

% of OBW Power
x dB

99.00 %
-26.00 dB

Nov 16, 2024
5:08:18 PM

Test Mode	Test Channel	Verdict
11ax HE40	5190	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF
RL

Coupling: DC
Align: Auto

Input Z: 50 Ω
Corrections: Off
Freq Ref: Int (S)

Atten: 30 dB
Preamp: Off

Trig: Free Run
Gate: Off
#F Gain: Low

Center Freq: 5.19000000 GHz
Avg/Hold: 100/100
Radio Std: None

1 Graph

Scale/Div: 10.0 dB

Log

Ref Lvl Offset: 10.12 dB
Ref Value: 20.00 dBm

Mkr1: 5.1810 GHz
7.28 dBm

Center: 5.19 GHz
#Res BW: 820.00 kHz

#Video BW: 2.7000 MHz

Span: 80 MHz
Sweep Time: 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth
37.544 MHz

Total Power
19.5 dBm

Transmit Freq Error
-26.159 kHz

% of OBIW Power
99.00 %

x dB Bandwidth
42.16 MHz

x dB
-26.00 dB

Frequency

Settings

Center Frequency
5.190000000 GHz

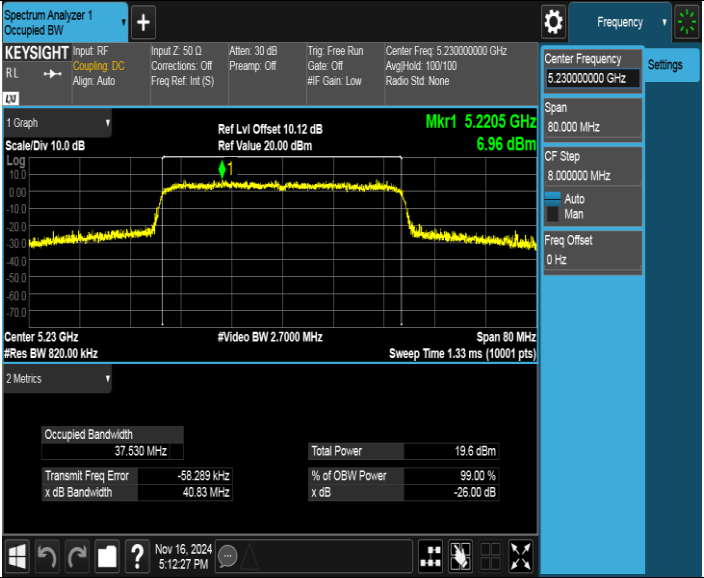
Span
80.000 MHz

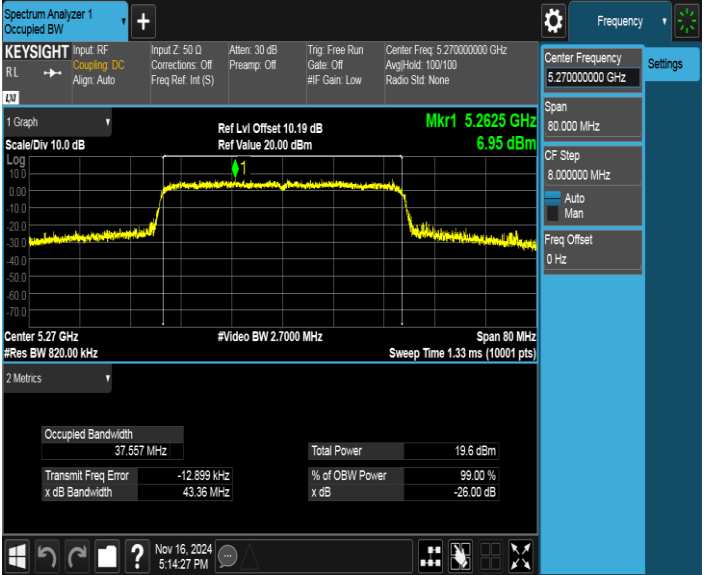
CF Step
8.000000 MHz

Auto
Man

Freq Offset
0 Hz

Nov 16, 2024
5:10:27 PM

Test Mode	Test Channel	Verdict
11ax HE40	5230	PASS
		

Test Mode	Test Channel	Verdict
11ax HE40	5270	PASS
		

Test Mode	Test Channel	Verdict
11ax HE40	5310	PASS

Spectrum Analyzer 1
Occupied BW

KEYSIGHT

Input: RF

Coupling DC

Align: Auto

Input Z: 50 Ω

Corrections: Off

Freq Ref: Int (S)

Atten: 30 dB

Preamp: Off

Trig: Free Run

Gate: Off

#F Gain: Low

Center Freq: 5.31000000 GHz

Avg/Hold: 100/100

Radio Std: None

Center Frequency

5.310000000 GHz

Span

80.000 MHz

CF Step

8.000000 MHz

Auto

Man

Freq Offset

0 Hz

1 Graph

Scale/Div 10.0 dB

Log

Ref Lvl Offset 10.19 dB

Ref Value 20.00 dBm

Mkr1 5.3016 GHz

6.90 dBm

Center 5.31 GHz

#Video BW 2.7000 MHz

Span 80 MHz

#Res BW 820.00 kHz

Sweep Time 1.33 ms (10001 pts)

2 Metrics

Occupied Bandwidth

37.469 MHz

Total Power

19.1 dBm

Transmit Freq Error

-80.416 kHz

% of OBW Power

99.00 %

x dB Bandwidth

41.17 MHz

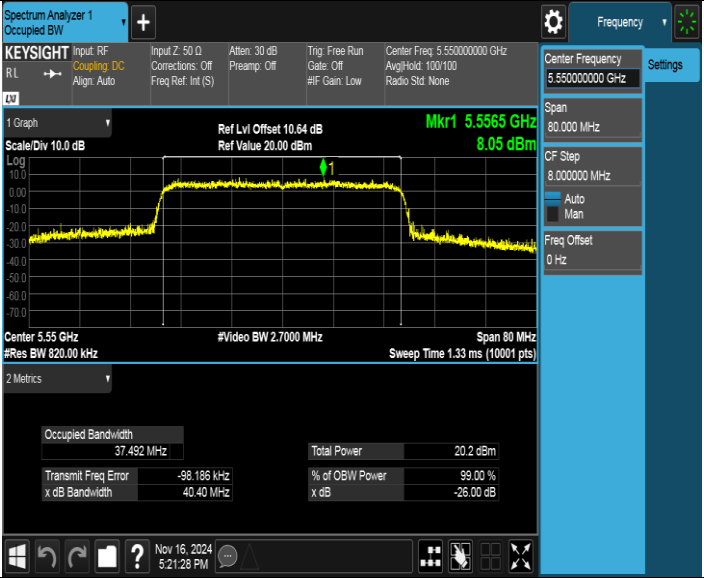
x dB

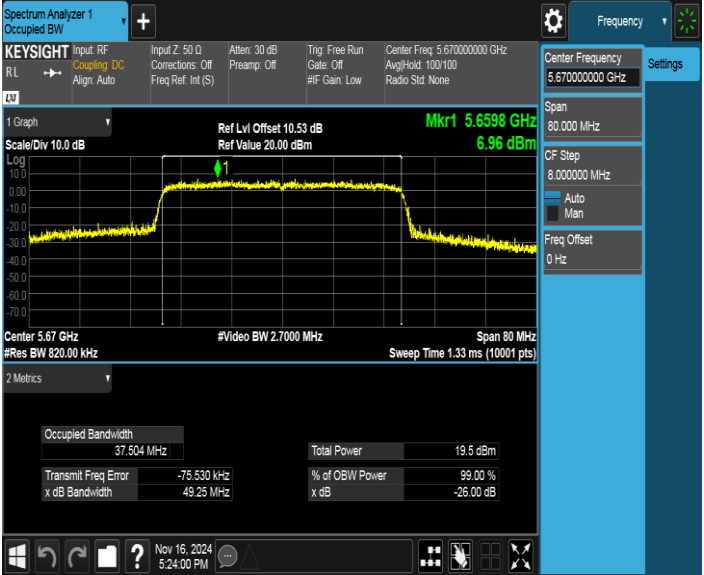
-26.00 dB

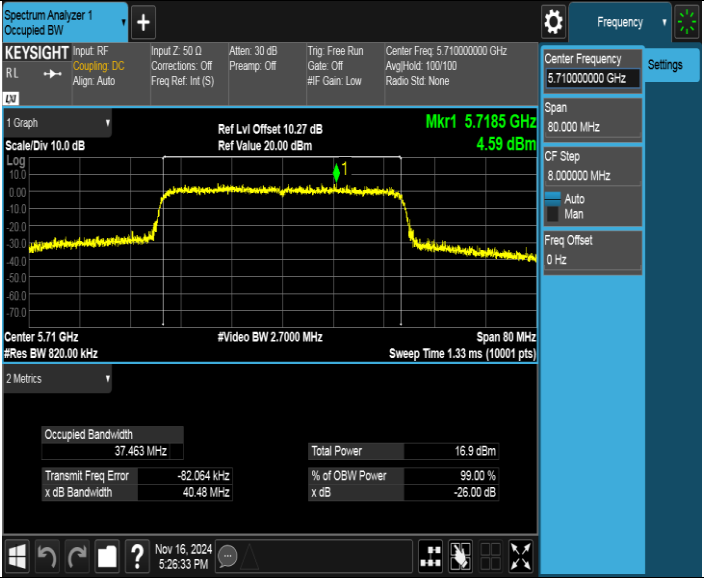
Nov 16, 2024

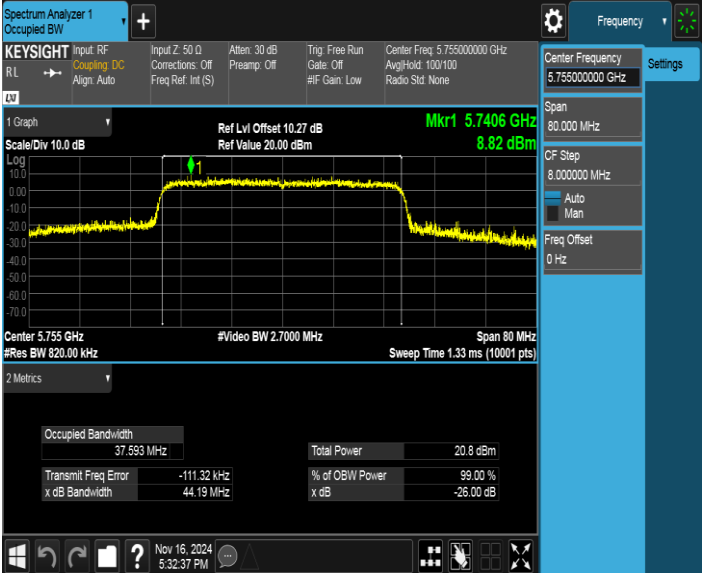
5:16:49 PM

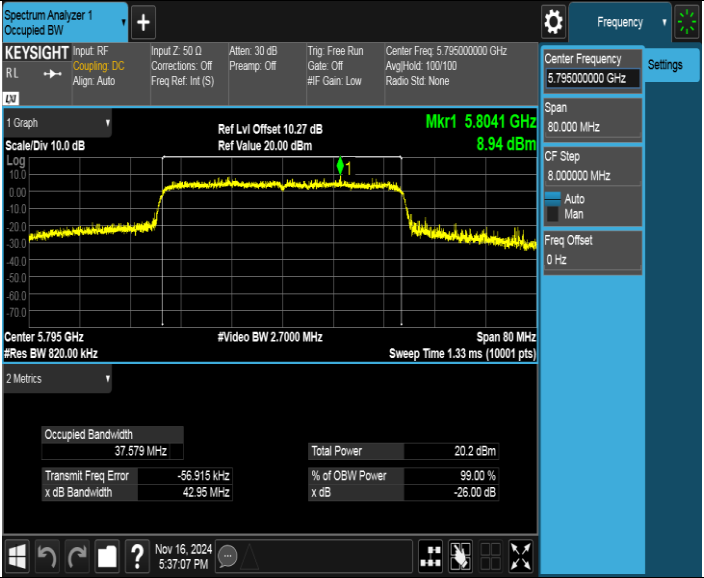
Test Mode	Test Channel	Verdict
11ax HE40	5510	PASS
<div><div><div><div>Spectrum Analyzer 1 Occupied BW</div><div><div>KEYSIGHT</div><div>Input: RF RL →</div><div>Coupling: DC Align: Auto</div></div><div>Input Z: 50 Ω Corrections: Off Freq Ref: Int (S)</div><div>Atten: 30 dB Preamp: Off</div><div>Trig: Free Run Gate: Off #IF Gain: Low</div><div>Center Freq: 5.510000000 GHz Avg/Hold: 100/100 Radio Std: None</div></div><div><div>1 Graph</div><div>Scale/Div 10.0 dB</div><div>Log</div><div>Ref Lvl Offset 10.64 dB Ref Value 20.00 dBm</div><div>Mkr1 5.4936 GHz 7.25 dBm</div><div>Center 5.51 GHz #Res BW 820.00 kHz</div><div>#Video BW 2.7000 MHz</div><div>Sweep Time 1.33 ms (10001 pts)</div><div>Span 80 MHz</div></div><div><div>2 Metrics</div><div><div>Occupied Bandwidth 37.472 MHz</div><div>Total Power 19.6 dBm</div><div>Transmit Freq Error -62.278 kHz</div><div>% of OBIW Power 99.00 %</div><div>x dB Bandwidth 40.60 MHz</div><div>x dB -26.00 dB</div></div></div></div><div><div>Frequency</div><div>Center Frequency 5.510000000 GHz</div><div>Span 80.000 MHz</div><div>CF Step 8.0000000 MHz</div><div>Auto Man</div><div>Freq Offset 0 Hz</div></div></div>		

Test Mode	Test Channel	Verdict
11ax HE40	5550	PASS
		

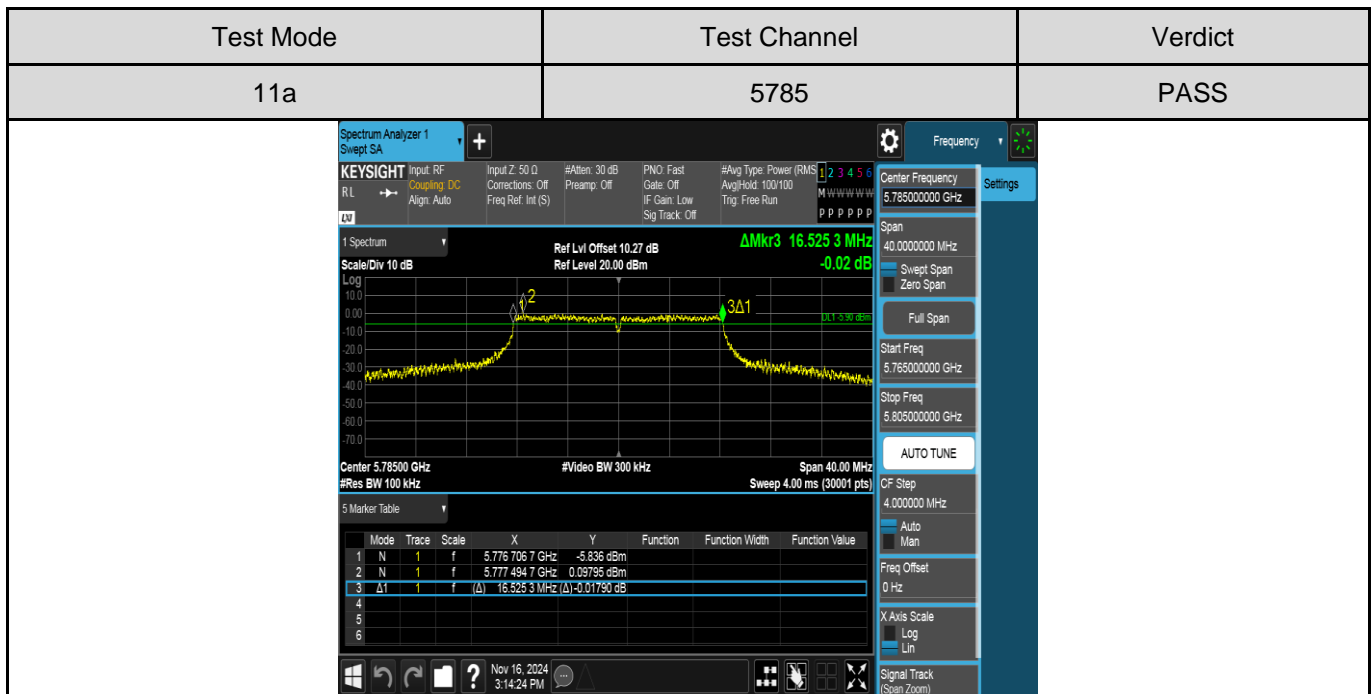
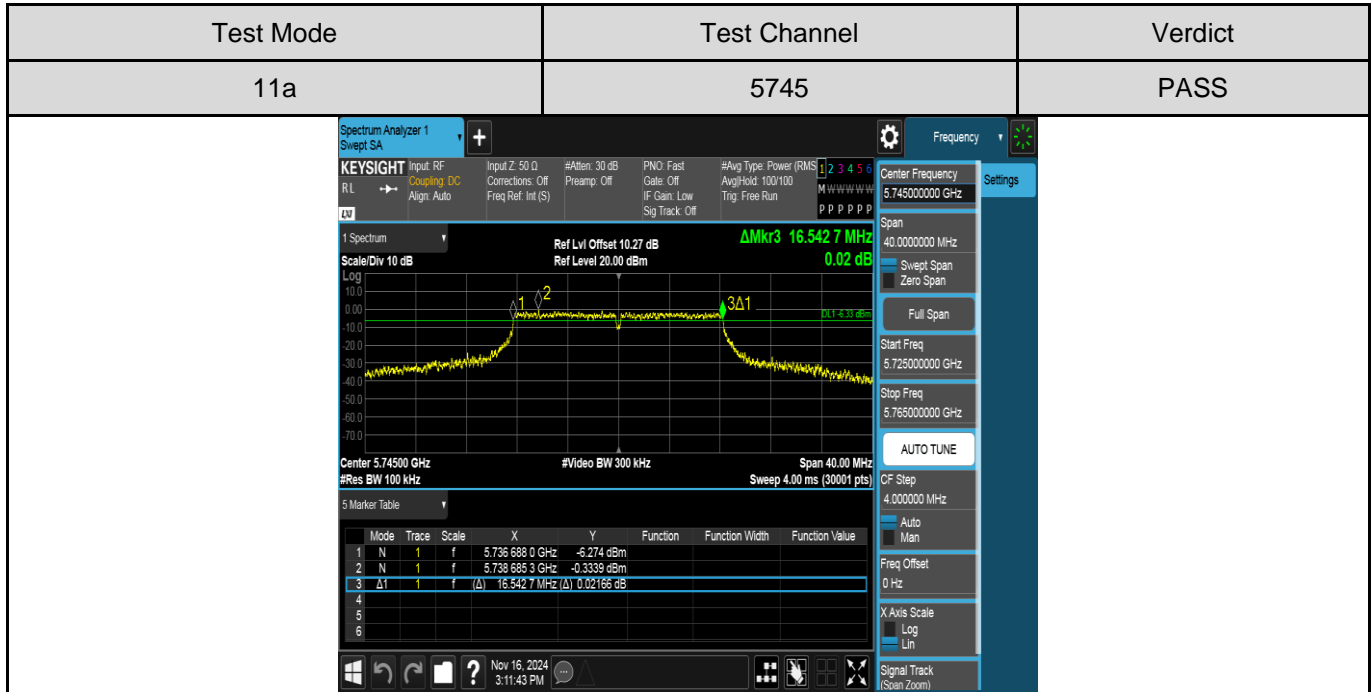
Test Mode	Test Channel	Verdict
11ax HE40	5670	PASS
		

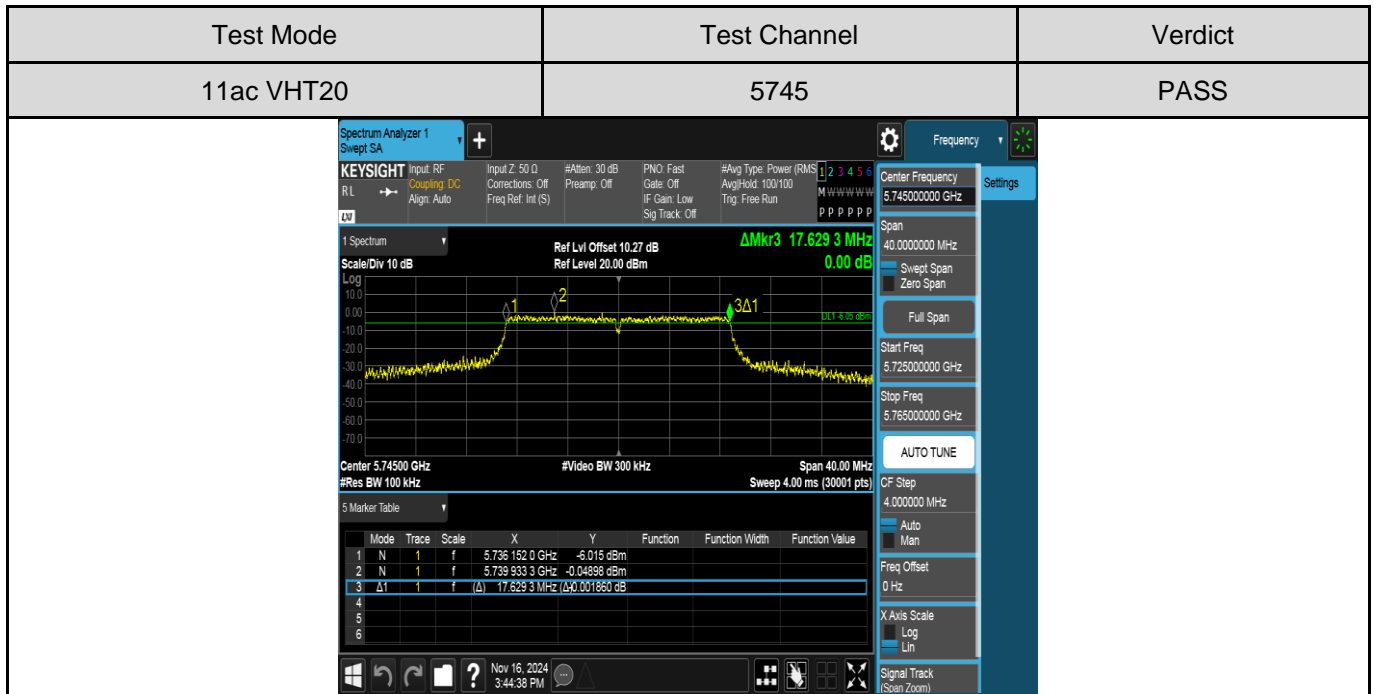
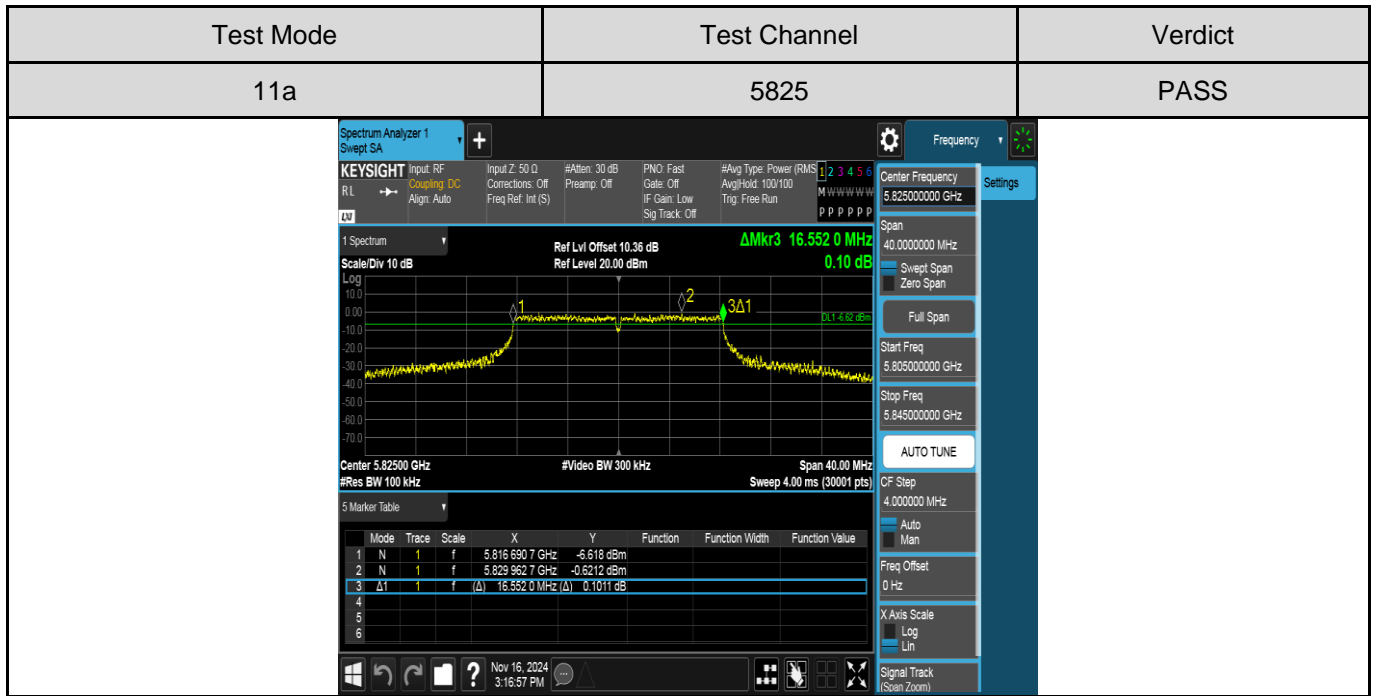
Test Mode	Test Channel	Verdict
11ax HE40	5710	PASS
 <p>Spectrum Analyzer 1 KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 5.71000000 GHz R/L → Coupling: DC Corrections: Off Preamp: Off Gate: Off Avg/Hold: 100/100 Align: Auto Freq Ref: Int (S) #IF Gain: Low Radio Std: None</p> <p>1 Graph Scale/Div: 10.0 dB Log Ref Lvl Offset: 10.27 dB Ref Value: 20.00 dBm Mkr1: 5.7185 GHz 4.59 dBm</p> <p>Center: 5.71 GHz #Video BW: 2.7000 MHz Span: 80 MHz #Res BW: 820.00 kHz Sweep Time: 1.33 ms (10001 pts)</p> <p>2 Metrics Occupied Bandwidth: 37.463 MHz Total Power: 16.9 dBm Transmit Freq Error: -82.064 MHz % of OBIW Power: 99.00 % x dB Bandwidth: 40.48 MHz x dB: -26.00 dB</p> <p>Nov 16, 2024 5:26:33 PM</p>		

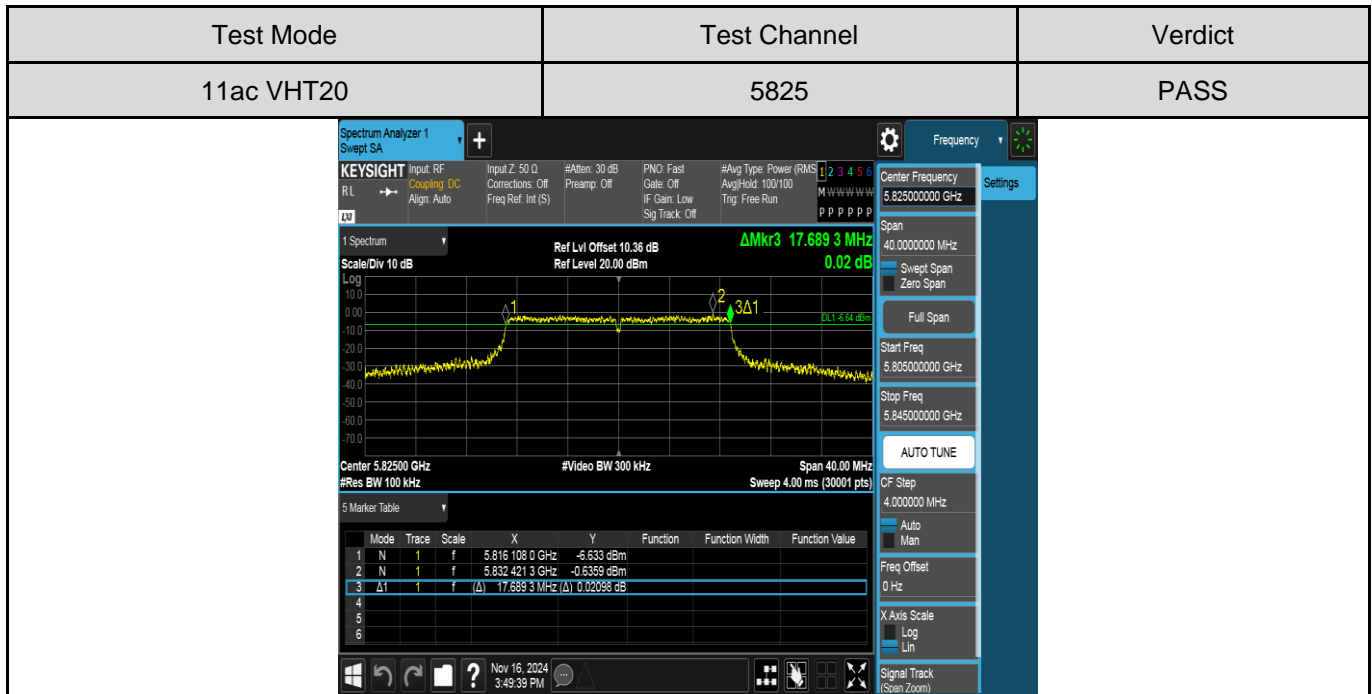
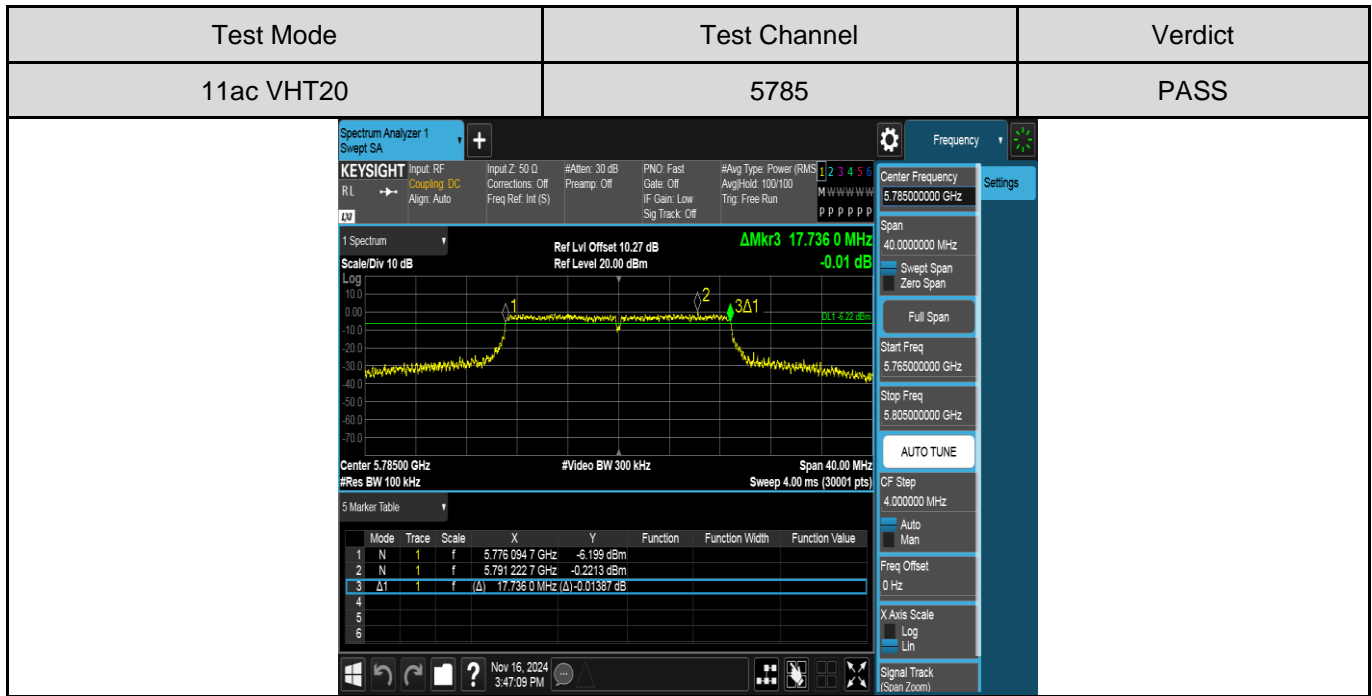
Test Mode	Test Channel	Verdict
11ax HE40	5755	PASS
 <p>Spectrum Analyzer 1 KEYSIGHT Input: RF Input Z: 50 Ω Atten: 30 dB Trig: Free Run Center Freq: 5.75500000 GHz R/L → Coupling: DC Corrections: Off Preamp: Off Gate: Off Avg/Hold: 100/100 Align: Auto Freq Ref: Int (S) #IF Gain: Low Radio Std: None</p> <p>1 Graph Scale/Div: 10.0 dB Log Ref Lvl Offset: 10.27 dB Ref Value: 20.00 dBm Mkr1: 5.7406 GHz 8.82 dBm</p> <p>Center: 5.755 GHz #Video BW: 2.7000 MHz Span: 80 MHz #Res BW: 820.00 kHz Sweep Time: 1.33 ms (10001 pts)</p> <p>2 Metrics Occupied Bandwidth: 37.593 MHz Total Power: 20.8 dBm Transmit Freq Error: -111.32 kHz % of OBIW Power: 99.00 % x dB Bandwidth: 44.19 MHz x dB: -26.00 dB</p> <p>Nov 16, 2024 5:32:37 PM</p>		

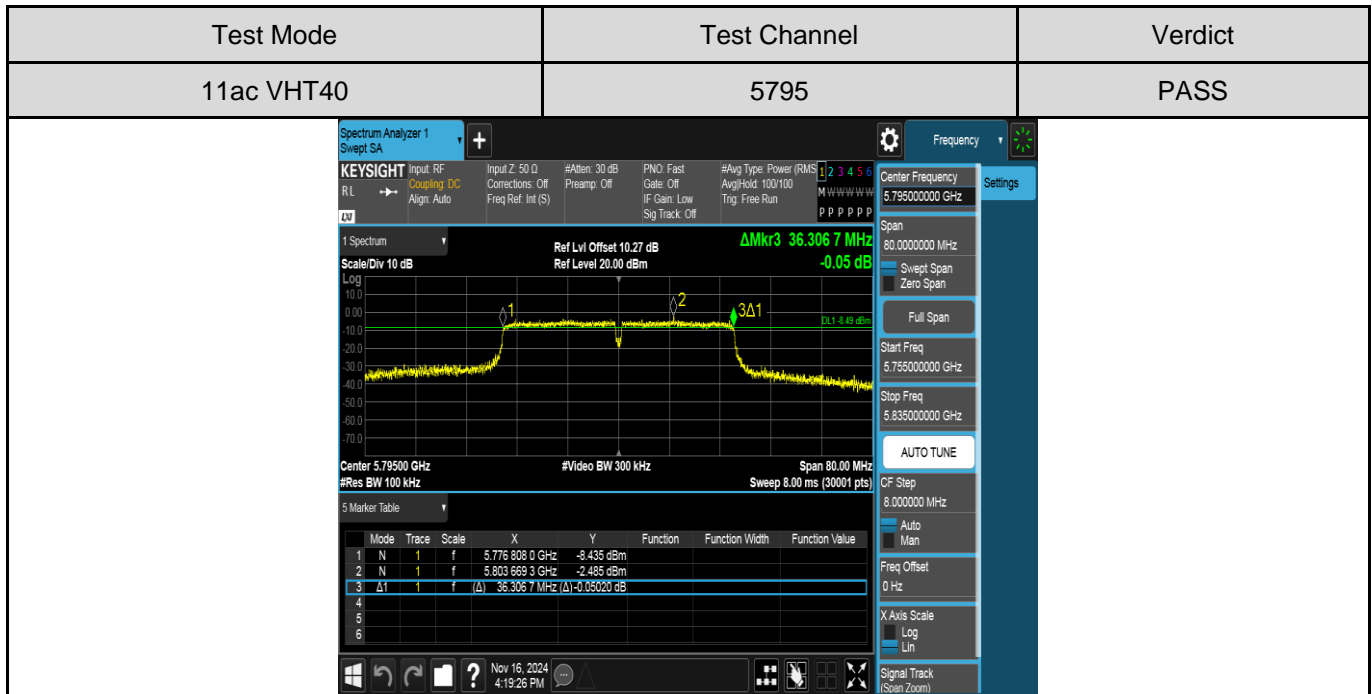
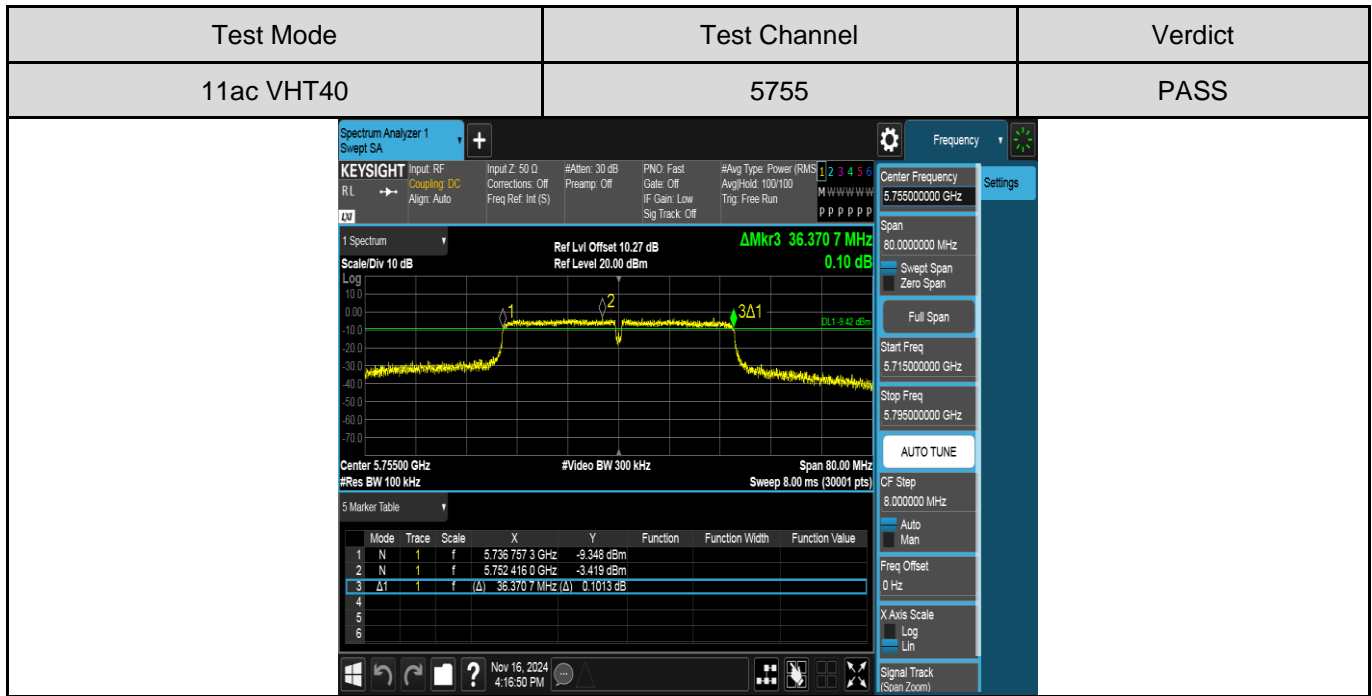
Test Mode	Test Channel	Verdict
11ax HE40	5795	PASS
		

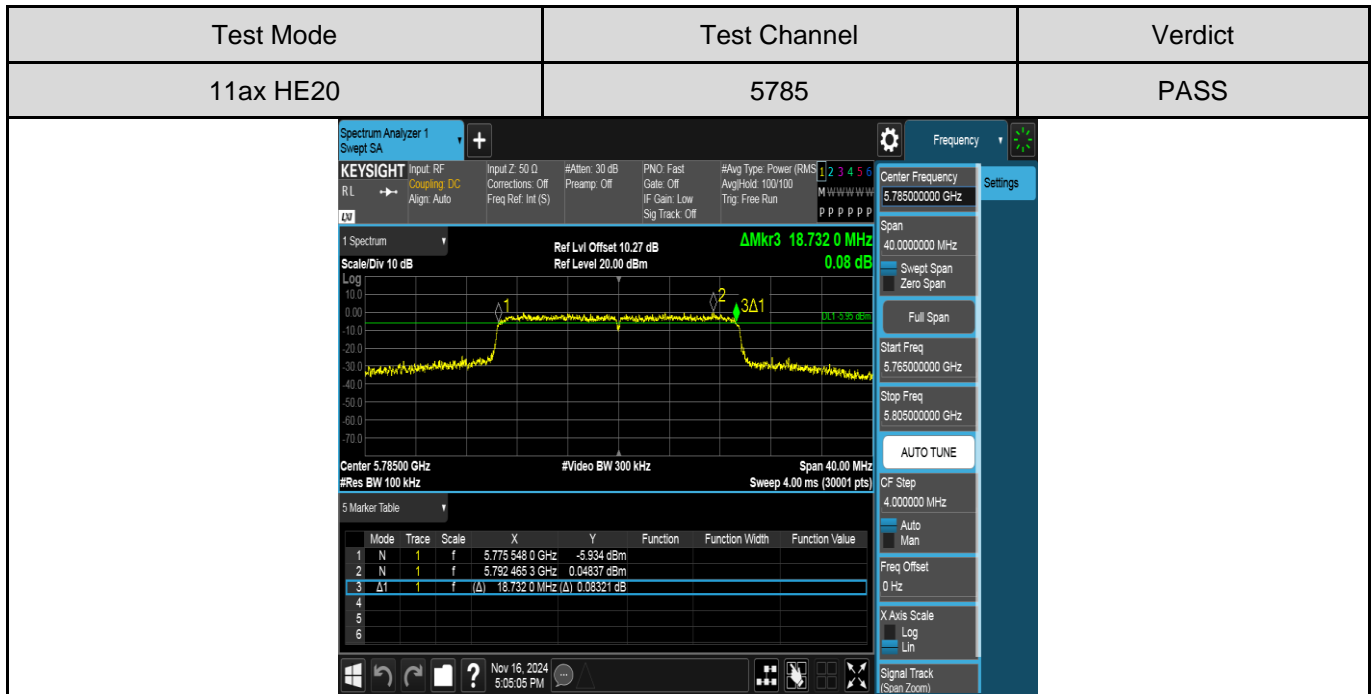
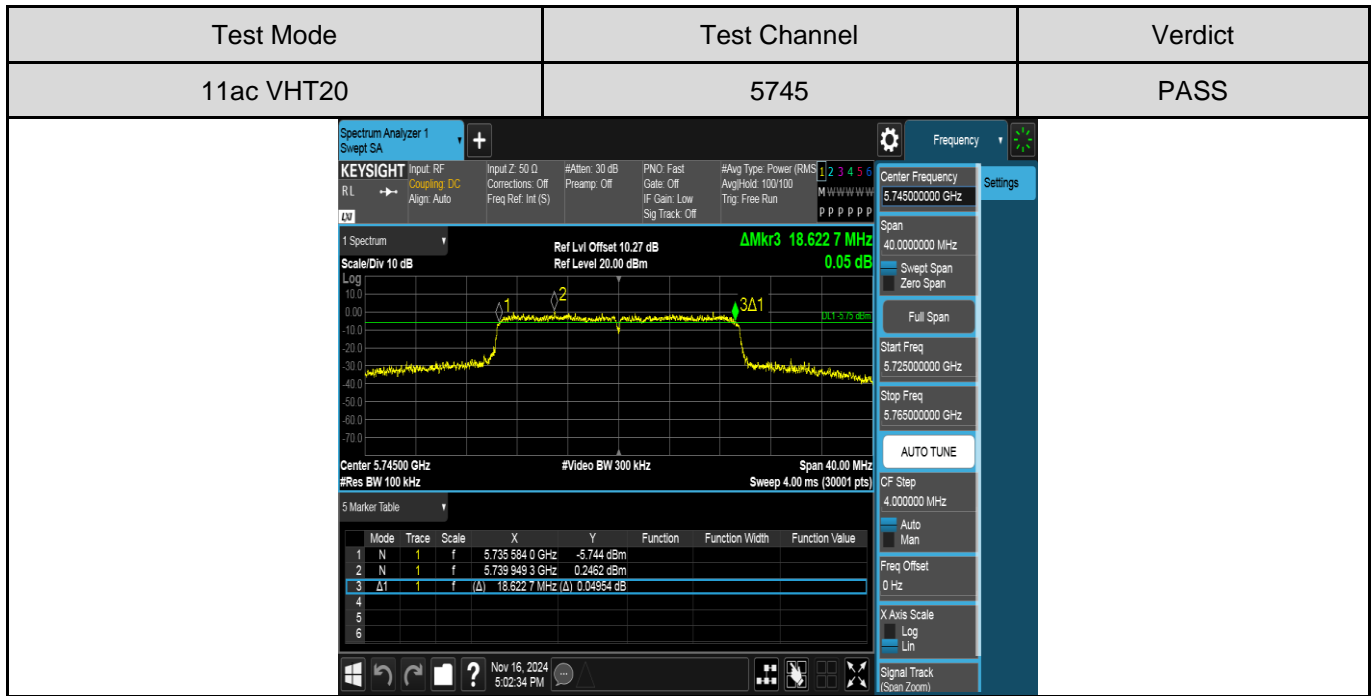
For 6 dB Emission Bandwidth Part:

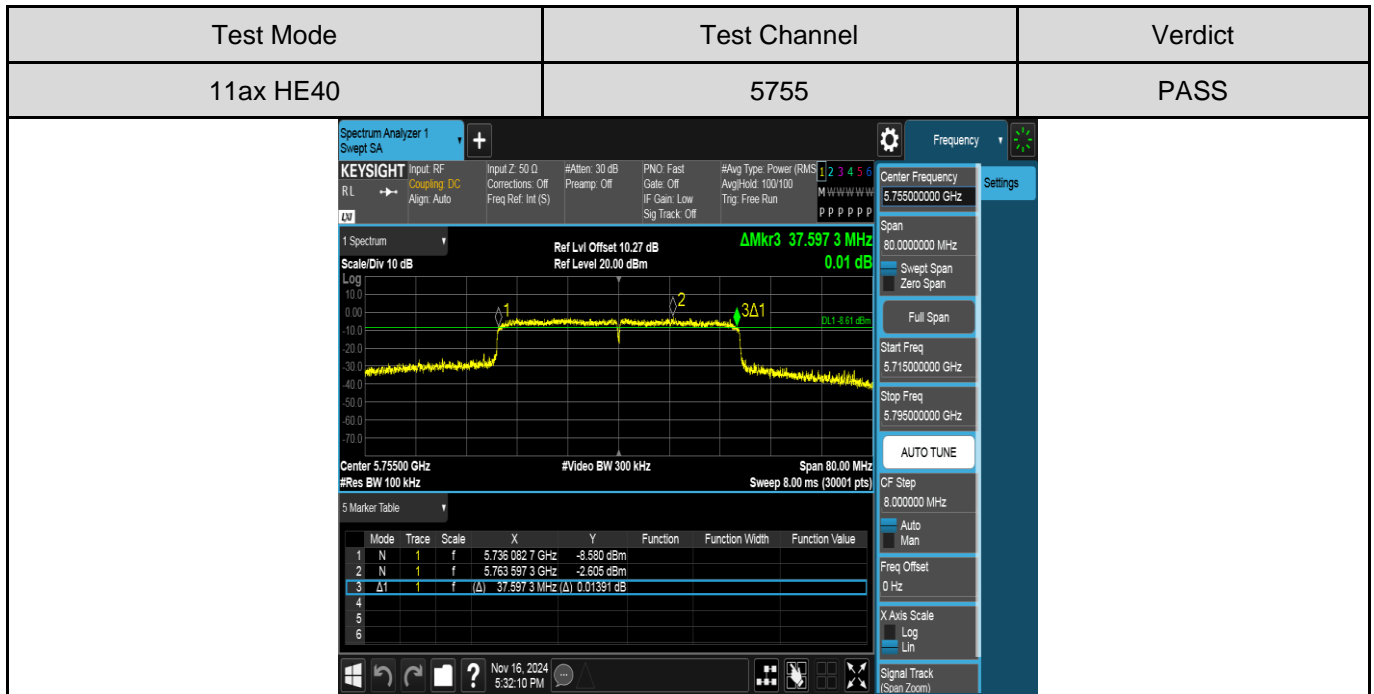
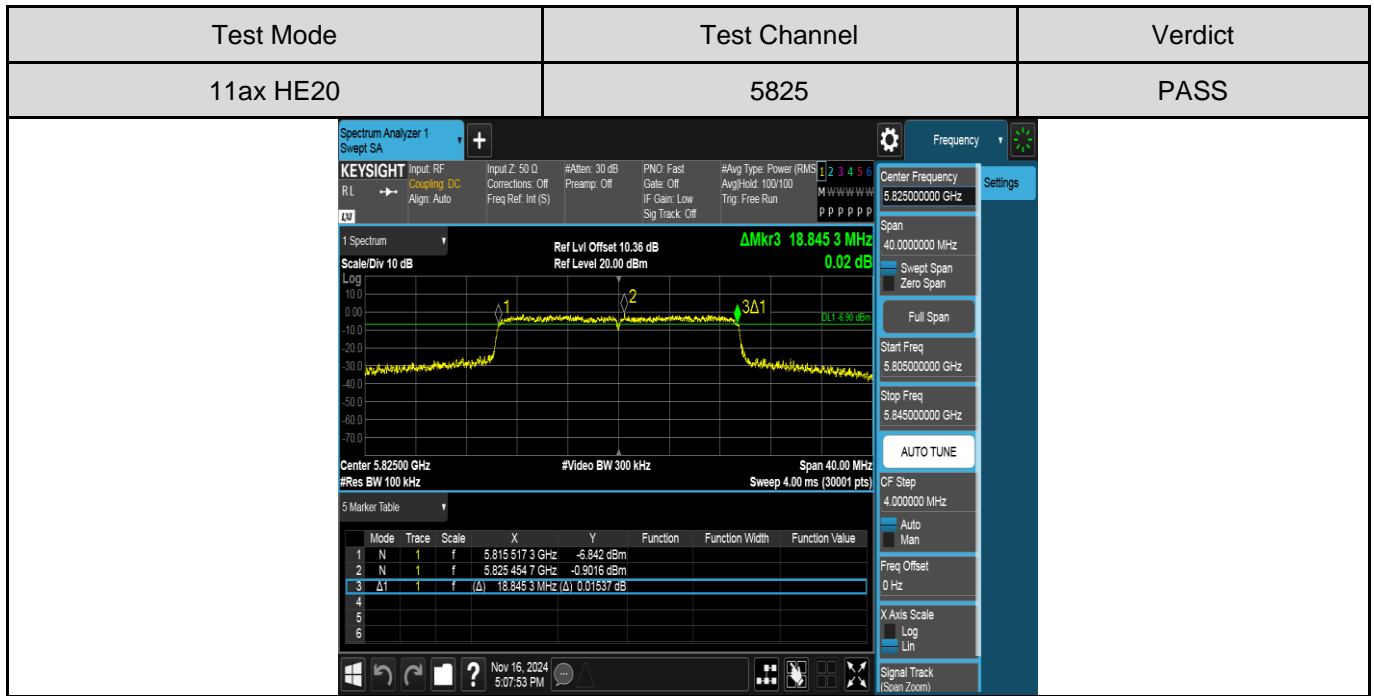


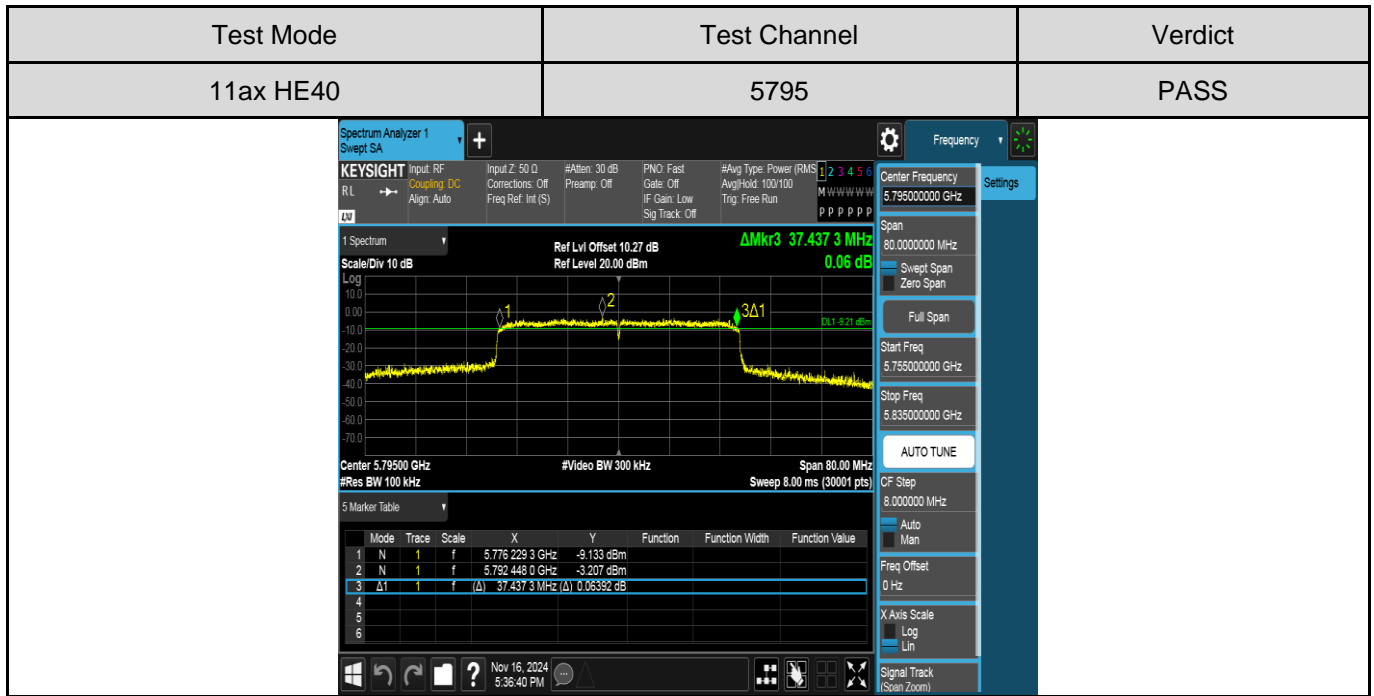












6.3. MAXIMUM CONDUCTED AVERAGE OUTPUT POWER

LIMITS

CFR 47 FCC Part15, Subpart E RSS-247 Clause 6.2		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	<input type="checkbox"/> Outdoor Access Point: 1 W (30 dBm) <input type="checkbox"/> Indoor Access Point: 1 W (30 dBm) <input type="checkbox"/> Fixed Point-To-Point Access Points: 1 W (30 dBm) <input checked="" type="checkbox"/> Client Devices: 250 mW (24 dBm)	5150 ~ 5250
	Shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.	5250 ~ 5350 5470 ~ 5725
	Shall not exceed 1 Watt (30 dBm).	5725 ~ 5850

Remark:

The above limits are based upon the maximum antenna gain does not exceed 6 dBi.

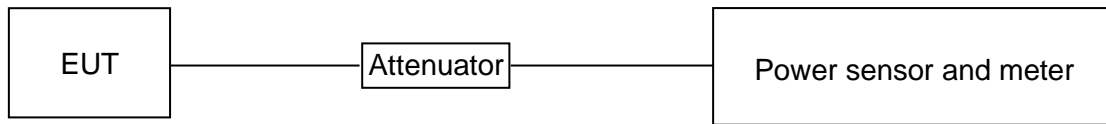
If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

Refer to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 section II.E.

Method SA-1 (trace averaging with the EUT transmitting at full power throughout each sweep):

- (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- (ii) Set RBW = 1 MHz.
- (iii) Set VBW \geq 3 MHz.
- (iv) Number of points in sweep $\geq 2 \times \text{span} / \text{RBW}$. (This ensures that bin-to-bin spacing is $\leq \text{RBW}/2$, so that narrowband signals are not lost between frequency bins.)
- (v) Sweep time = auto.
- (vi) Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle $< 98\%$, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at 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 $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run."
- (viii) Trace average at least 100 traces in power averaging (rms) mode.
- (ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

TEST SETUP**TEST ENVIRONMENT**

Environment Parameter	Selected Values During Tests
Relative Humidity	60%
Atmospheric Pressure:	101kPa
Temperature	22.2°C
Test Voltage	AC 120V
Test Date	11/16/2024

TEST RESULT TABLE

Mode	Frequency	Measurement Output Power	Duty Cycle Correction Factor	Average Conducted Output Power	FCC Power Limit	ISED Power Limit	Antenna Gain	EIRP	ISED EIRP Limit
	MHz	dBm	dB	dBm	dBm	dBm	dB	dBm	dBm
11a	5180	13.03	0	13.03	24.00	/	2.66	15.69	22.32
	5200	13.21	0	13.21	24.00	/	2.66	15.87	22.33
	5240	12.84	0	12.84	24.00	/	2.66	15.5	22.31
	5260	13.16	0	13.16	24.00	23.31	2.66	15.82	29.31
	5280	13.08	0	13.08	24.00	23.32	2.66	15.74	29.32
	5320	12.58	0	12.58	23.96	23.30	2.66	15.24	29.30
	5500	13.05	0	13.05	23.96	23.31	2.66	15.71	29.31
	5580	12.38	0	12.38	23.97	23.32	2.66	15.04	29.32
	5700	12.20	0	12.20	24.00	23.31	2.66	14.86	29.31
	5720_ UNII-2C	10.70	0	10.70	22.84	22.33	2.66	13.36	28.33
	5720_ UNII-3	4.51	0	4.51	30.00	/	2.66	7.17	36.00
	5745	12.73	0	12.73	30.00	/	2.66	15.39	36.00
	5785	13.36	0	13.36	30.00	/	2.66	16.02	36.00
	5825	13.63	0	13.63	30.00	/	2.66	16.29	36.00

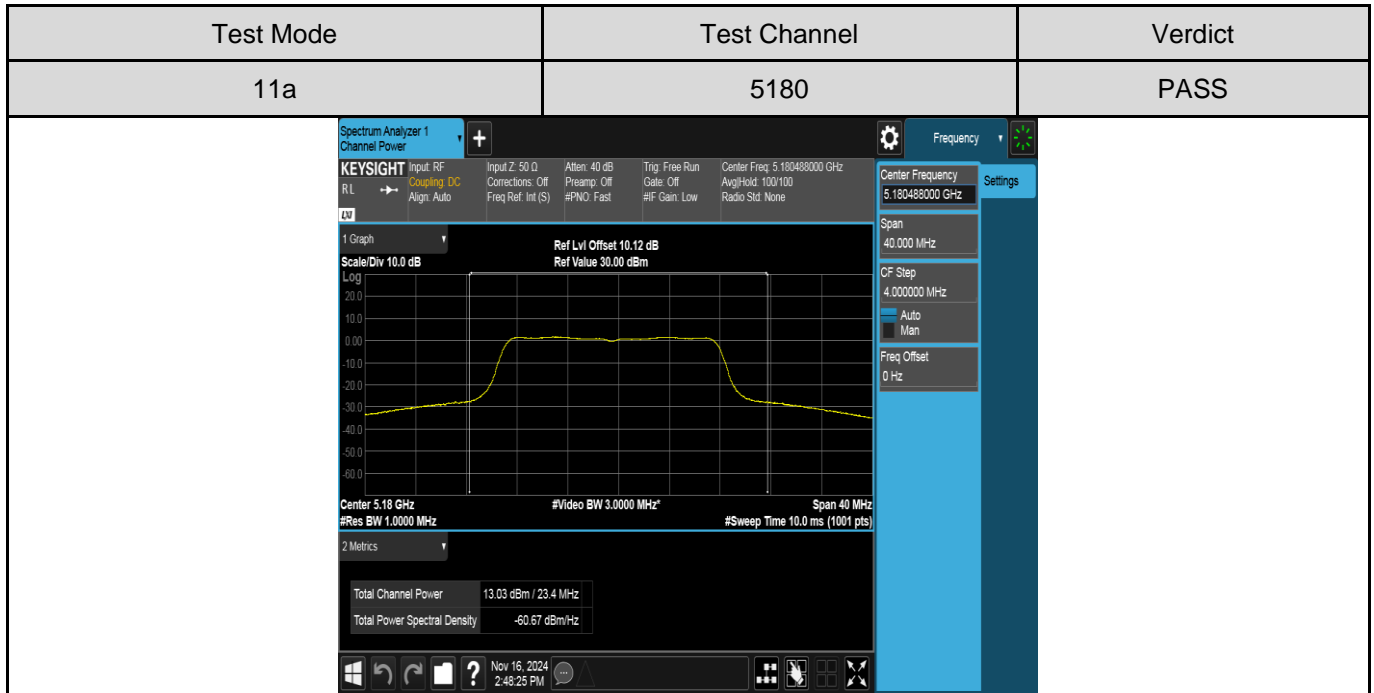
Mode	Frequency	Measurement Output Power	Duty Cycle Correction Factor	Average Conducted Output Power	FCC Power Limit	ISED Power Limit	Antenna Gain	EIRP	ISED EIRP Limit
	MHz	dBm	dB	dBm	dBm	dBm	dB	dBm	dBm
11ac VHT20	5180	13.01	0	13.01	24.00	/	2.66	15.67	22.54
	5200	13.22	0	13.22	24.00	/	2.66	15.88	22.56
	5240	13.09	0	13.09	24.00	/	2.66	15.75	22.53
	5260	13.15	0	13.15	24.00	23.54	2.66	15.81	29.54
	5280	13.09	0	13.09	24.00	23.53	2.66	15.75	29.53
	5320	12.59	0	12.59	24.00	23.54	2.66	15.25	29.54
	5500	12.92	0	12.92	24.00	23.54	2.66	15.58	29.54
	5580	12.33	0	12.33	24.00	23.54	2.66	14.99	29.54
	5700	12.06	0	12.06	24.00	23.54	2.66	14.72	29.54
	5720_ UNII-2C	10.52	0	10.52	22.88	22.47	2.66	13.18	28.47
	5720_ UNII-3	4.85	0	4.85	30.00	/	2.66	7.51	36.00
	5745	12.76	0	12.76	30.00	/	2.66	15.42	36.00
	5785	13.32	0	13.32	30.00	/	2.66	15.98	36.00
	5825	12.58	0	12.58	30.00	/	2.66	15.24	36.00

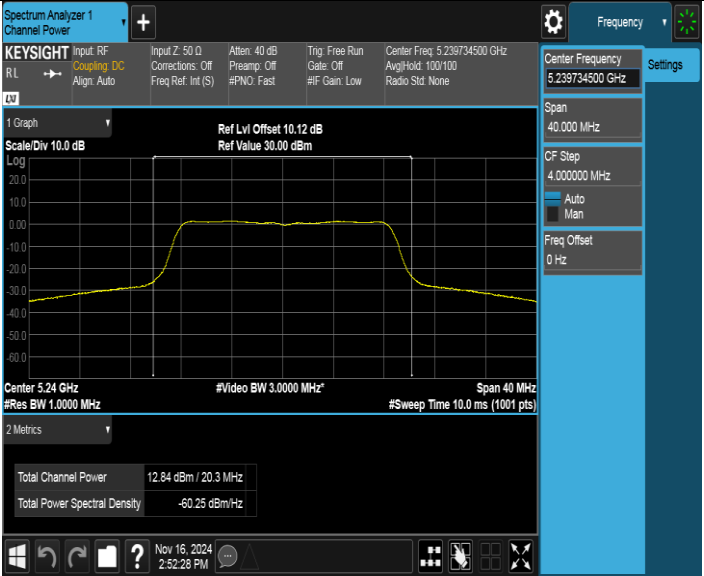
Mode	Frequency	Measurement Output Power	Duty Cycle Correction Factor	Average Conducted Output Power	FCC Power Limit	ISED Power Limit	Antenna Gain	EIRP	ISED EIRP Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ac VHT40	5190	12.63	0	12.63	24.00	24.00	2.66	15.29	23.00
	5230	12.82	0	12.82	24.00	24.00	2.66	15.48	23.00
	5270	12.93	0	12.93	24.00	24.00	2.66	15.59	30.00
	5310	12.45	0	12.45	24.00	24.00	2.66	15.11	30.00
	5510	12.49	0	12.49	24.00	24.00	2.66	15.15	30.00
	5550	12.96	0	12.96	24.00	24.00	2.66	15.62	30.00
	5670	12.18	0	12.18	24.00	24.00	2.66	14.84	30.00
	5710_ UNII-2C	11.04	0	11.04	24.00	24.00	2.66	13.7	30.00
	5710_ UNII-3	-0.47	0	-0.47	30.00	/	2.66	2.19	36.00
	5755	13.32	0	13.32	30.00	/	2.66	15.98	36.00
	5795	12.95	0	12.95	30.00	/	2.66	15.61	36.00

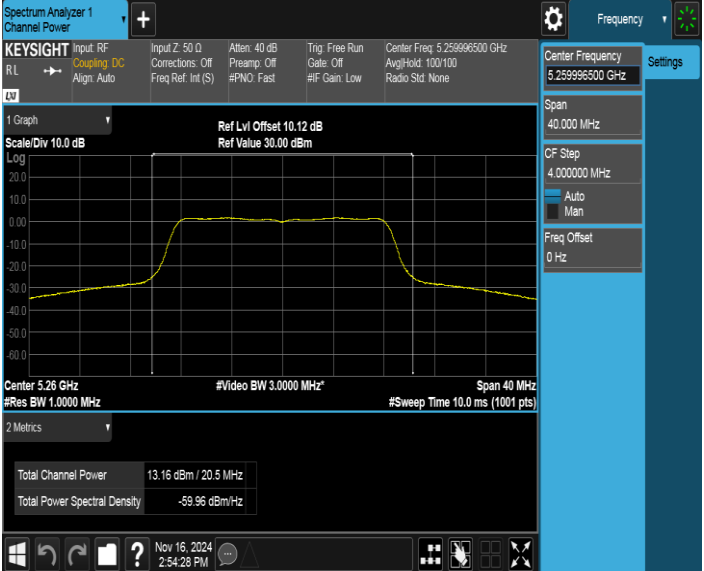
Mode	Frequency	Measurement Output Power	Duty Cycle Correction Factor	Average Conducted Output Power	FCC Power Limit	ISED Power Limit	Antenna Gain	EIRP	ISED EIRP Limit
	MHz	dBm	dB	dBm	dBm	dBm	dBi	dBm	dBm
11ax HE20	5180	12.86	0	12.86	24.00	/	2.66	15.52	22.76
	5200	13.10	0	13.10	24.00	/	2.66	15.76	22.76
	5240	12.74	0	12.74	24.00	/	2.66	15.4	22.77
	5260	13.06	0	13.06	24.00	23.76	2.66	15.72	29.76
	5280	13.02	0	13.02	24.00	23.76	2.66	15.68	29.76
	5320	12.53	0	12.53	24.00	23.77	2.66	15.19	29.75
	5500	12.86	0	12.86	24.00	23.77	2.66	15.52	29.76
	5580	12.27	0	12.27	24.00	23.76	2.66	14.93	29.76
	5700	11.97	0	11.97	24.00	23.76	2.66	14.63	29.76
	5720_ UNII-2C	10.31	0	10.31	22.94	22.61	2.66	12.97	28.61
	5720_ UNII-3	4.95	0	4.95	30.00	/	2.66	7.61	36.00
	5745	12.66	0	12.66	30.00	/	2.66	15.32	36.00
	5785	13.24	0	13.24	30.00	/	2.66	15.9	36.00
	5825	12.47	0	12.47	30.00	/	2.66	15.13	36.00

Mode	Frequency	Measurement Output Power	Duty Cycle Correction Factor	Average Conducted Output Power	FCC Power Limit	ISED Power Limit	Antenna Gain	EIRP	ISED EIRP Limit
	MHz	dBm	dB	dBm	dBm	dBm	dB	dBm	dBm
11ax HE40	5190	12.63	0	12.63	24.00	24.00	2.66	15.29	23.00
	5230	12.80	0	12.80	24.00	24.00	2.66	15.46	23.00
	5270	12.91	0	12.91	24.00	24.00	2.66	15.57	30.00
	5310	12.43	0	12.43	24.00	24.00	2.66	15.09	30.00
	5510	12.52	0	12.52	24.00	24.00	2.66	15.18	30.00
	5550	12.99	0	12.99	24.00	24.00	2.66	15.65	30.00
	5670	12.20	0	12.20	24.00	24.00	2.66	14.86	30.00
	5710_ UNII-2C	9.29	0	9.29	24.00	24.00	2.66	11.95	30.00
	5710_ UNII-3	-1.87	0	-1.87	30.00	/	2.66	0.79	36.00
	5755	13.45	0	13.45	30.00	/	2.66	16.11	36.00
	5795	12.91	0	12.91	30.00	/	2.66	15.57	36.00

TEST GRAPHS



Test Mode	Test Channel	Verdict
11a	5240	PASS
 <p>The screenshot displays the Keysight Spectrum Analyzer interface. The main display shows a signal spectrum with a peak at 5.24 GHz. The y-axis represents power in dBm, ranging from -60.0 to 20.0. The x-axis represents frequency in MHz, with a span of 40 MHz. The signal is centered at 5.24 GHz with a resolution bandwidth of 1.0000 MHz and a video bandwidth of 3.0000 MHz. The total channel power is measured as 12.84 dBm / 20.3 MHz, and the total power spectral density is -60.25 dBm/MHz. The reference level is set to 30.00 dBm with a 10.12 dB offset. The settings panel on the right shows the center frequency at 5.239734500 GHz, span at 40.000 MHz, and CF step at 4.000000 MHz.</p>		

Test Mode	Test Channel	Verdict
11a	5260	PASS
 <p>The screenshot displays the Keysight Spectrum Analyzer interface. The main display shows a signal spectrum with a peak at 5.26 GHz. The y-axis represents power in dBm, ranging from -60.0 to 20.0. The x-axis represents frequency in MHz, with a span of 40 MHz. The signal is centered at 5.26 GHz with a resolution bandwidth of 1.0000 MHz and a video bandwidth of 3.0000 MHz. The total channel power is measured as 13.16 dBm / 20.5 MHz, and the total power spectral density is -59.96 dBm/MHz. The reference level is set to 30.00 dBm with a 10.12 dB offset. The settings panel on the right shows the center frequency at 5.259996500 GHz, span at 40.000 MHz, and CF step at 4.000000 MHz.</p>		