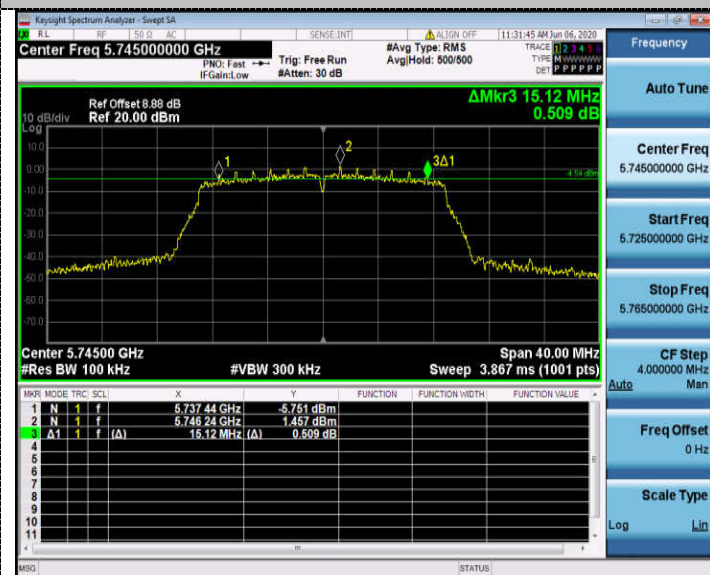
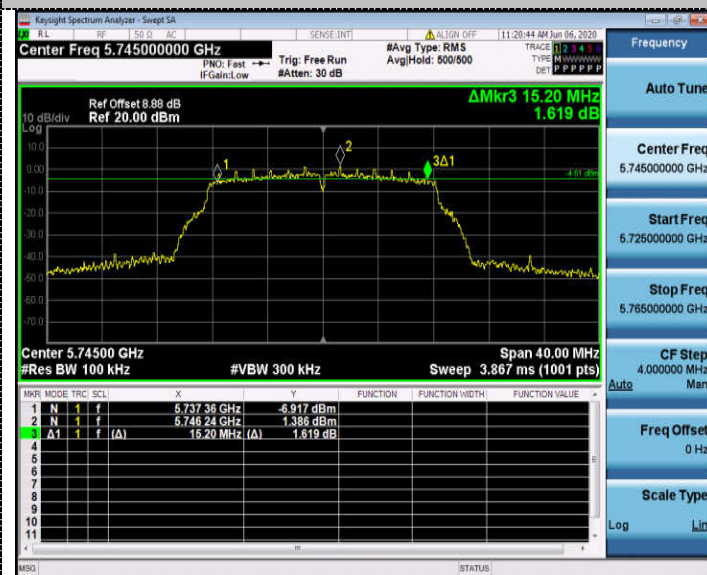


6dB Bandwidth

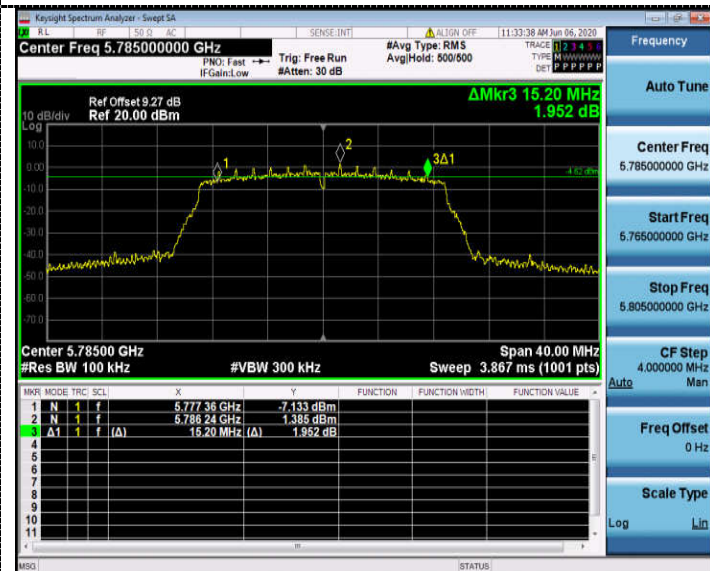
802.11a

802.11n HT20



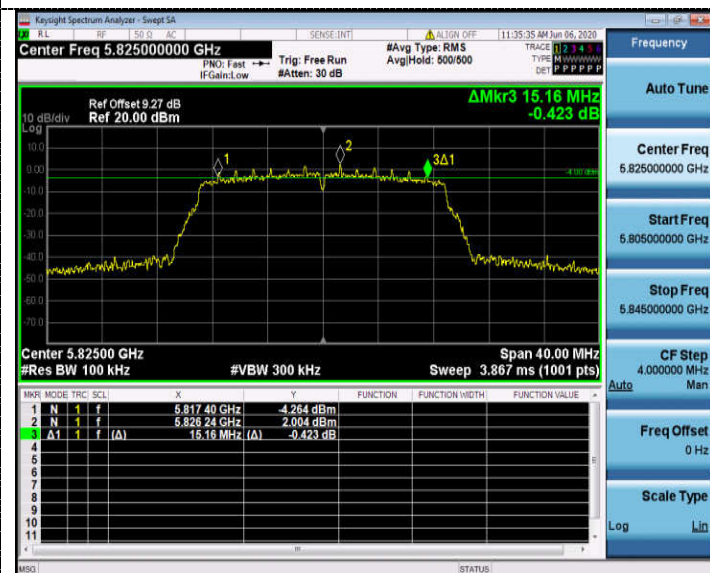
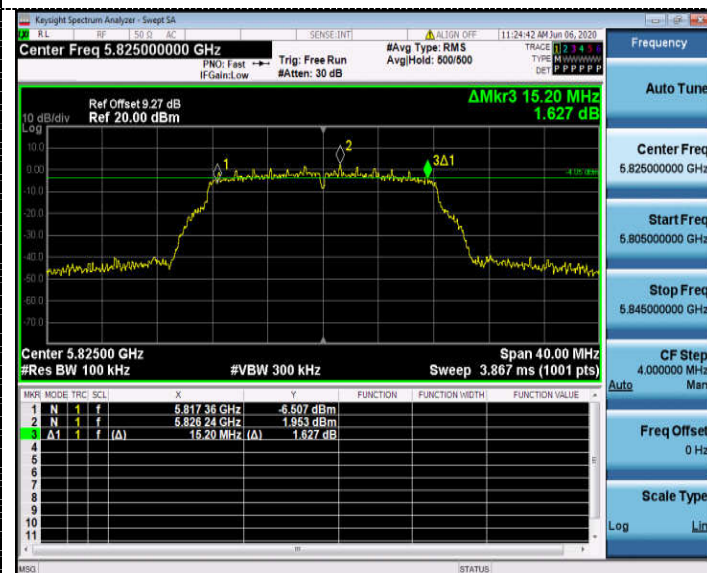
CH149

CH149



CH157

CH157



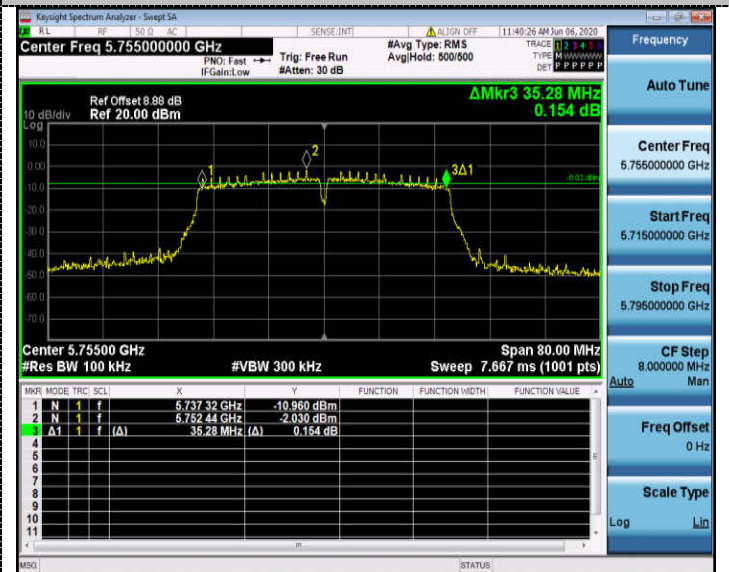
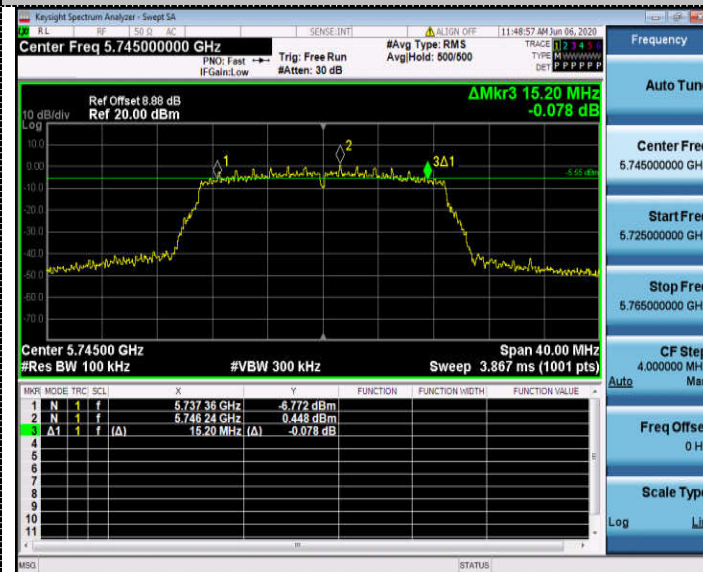
CH165

CH165

6dB Bandwidth

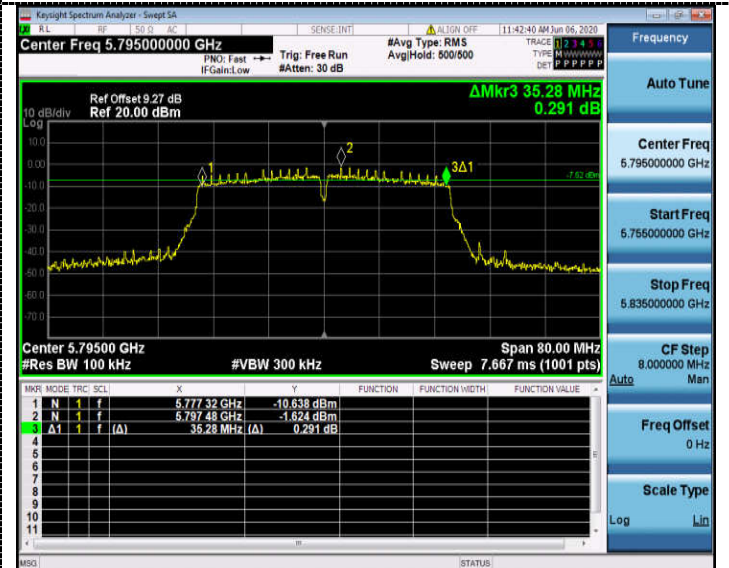
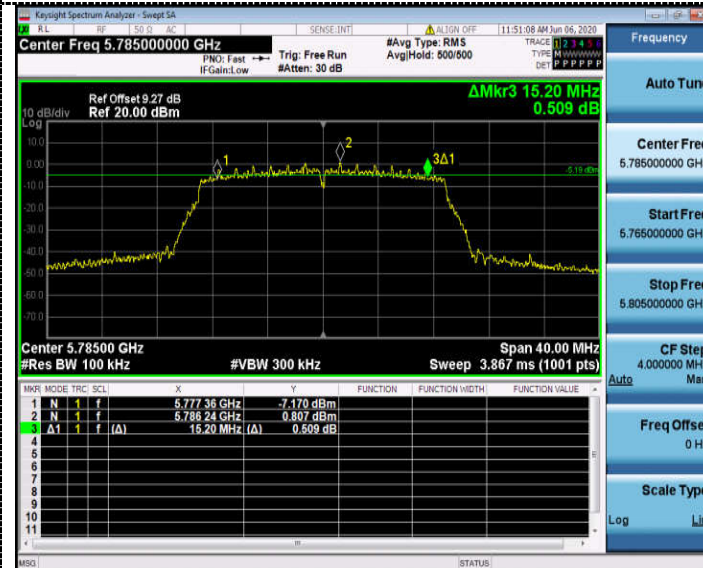
802.11ac20

802.11n HT40



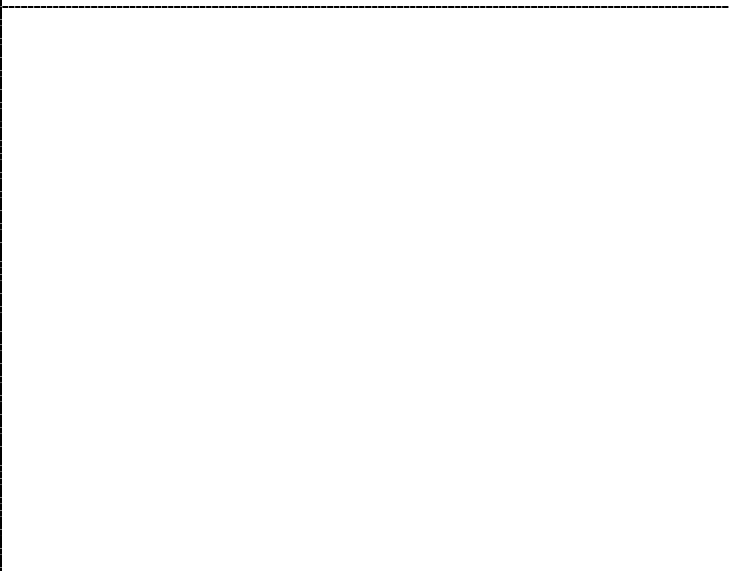
CH149

CH151



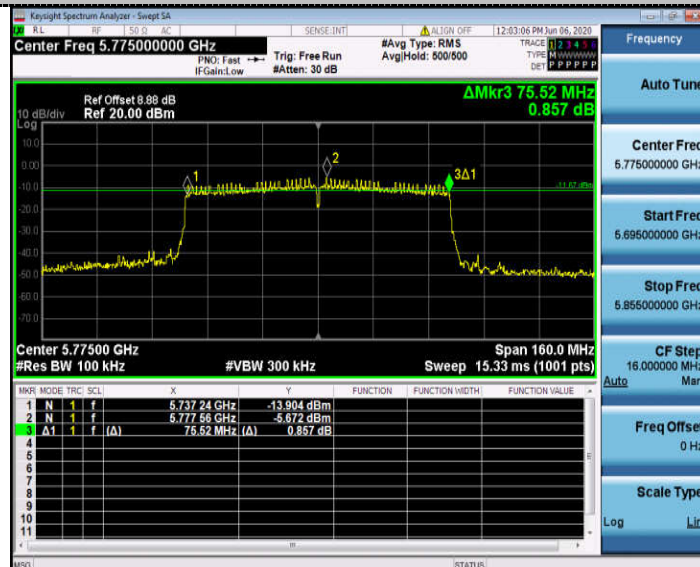
CH157

CH159

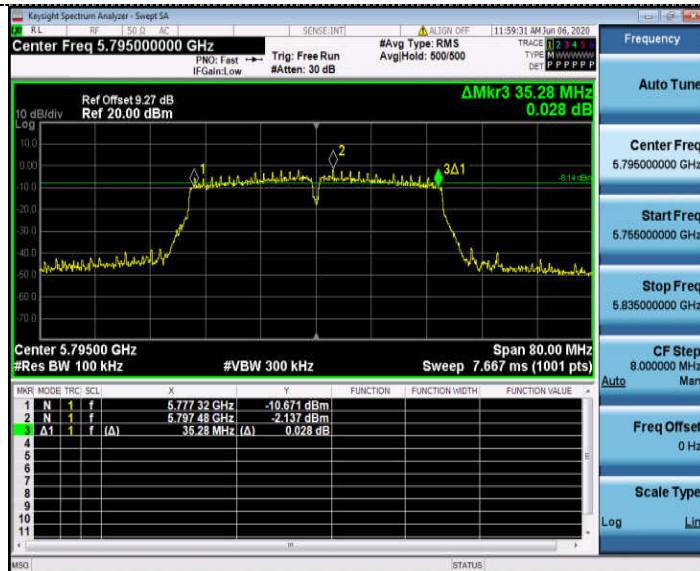


CH165

802.11ac80



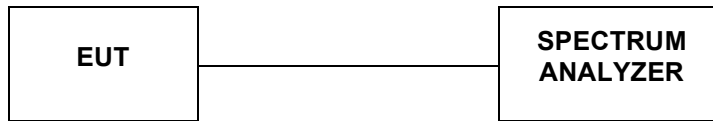
CH155



CH159

4.7. 26dBc Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General UNII Test Procedures New Rules v01 for one of the following procedures may be used for Emission Bandwidth (EBW) measurement:

- Set RBW = 300 kHz (approximately 1% of the emission bandwidth).
- Set the video bandwidth (VBW) = 1000 KHz (VBW > RBW)
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize
- Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

LIMIT

No Limits for 26dBc Bandwidth

TEST RESULTS

Temperature	23.7°C	Humidity	55.4%
Test Engineer	Moon Tan	Configurations	IEEE 802.11a/n/ac

Antenna 2:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.919	19.960	-	Pass
	40	16.867	20.120		
	48	16.935	20.040		
802.11nHT20	36	17.854	20.240	-	Pass
	40	17.842	20.440		
	48	17.823	20.280		
802.11ac20	36	17.677	20.240	-	Pass
	40	17.667	20.240		
	48	17.714	20.280		
802.11n40	38	36.278	40.800	-	Pass
	46	36.278	40.640		
802.11ac40	38	36.132	40.160	-	Pass
	46	36.191	40.560		
802.11ac80	155	75.360	80.480	-	Pass

Antenna 3:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	16.835	20.040	-	Pass
	40	16.921	19.960		
	48	16.954	20.000		
802.11nHT20	36	17.829	20.440	-	Pass
	40	17.808	20.400		
	48	17.877	20.160		
802.11ac20	36	17.743	20.160	-	Pass
	40	17.668	20.160		
	48	17.699	20.320		
802.11n40	38	36.306	40.400	-	Pass
	46	36.294	40.400		
802.11ac40	38	36.144	40.160	-	Pass
	46	36.124	40.080		
802.11ac80	155	75.254	80.160	-	Pass

Antenna 2:

99%Bandwidth

802.11a

802.11n HT20



CH36

CH36



CH40

CH40



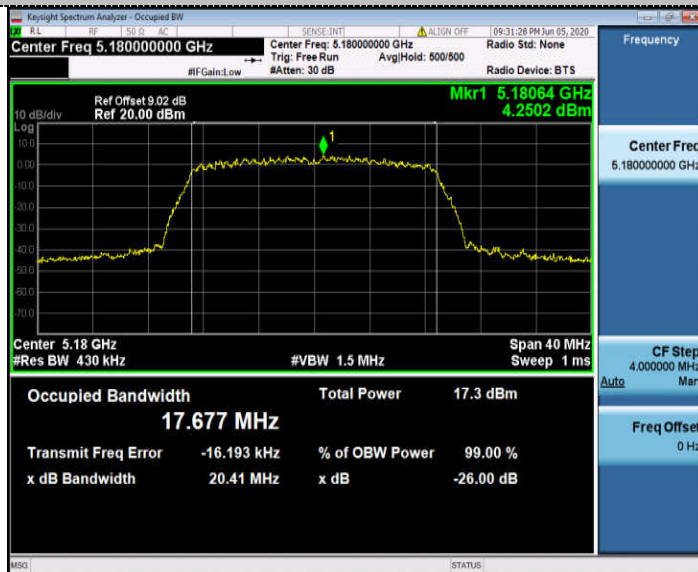
CH48

CH48

99%Bandwidth

802.11ac20

802.11n HT40



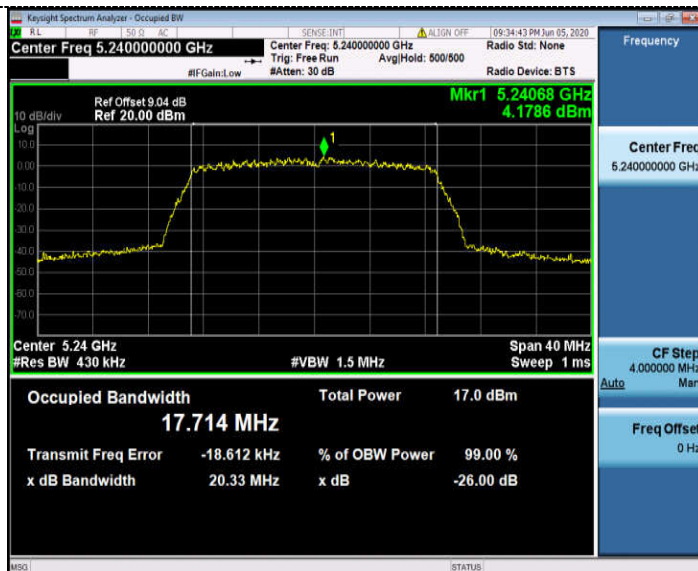
CH36

CH38



CH40

CH46



CH48



CH46

Keysight Spectrum Analyzer - Occupied BW

Center Freq 5.23000000 GHz

Center Freq: 5.23000000 GHz

Trig: Free Run

Avg/Hold: 500/500

Radio Std: None

Radio Device: BTS

#IFGain:Low

#Atten: 30 dB

Ref Offset 9.04 dB

Ref 20.00 dBm

Mkr1 5.23528 GHz

5.4729 dBm

10 dB/div

Log

Center 5.23 GHz

#Res BW 820 kHz

#VBW 3 MHz

Span 80 MHz

Sweep 1 ms

Occupied Bandwidth

36.191 MHz

Total Power

19.0 dBm

Transmit Freq Error

-14.052 kHz

% of OBW Power

99.00 %

x dB Bandwidth

41.02 MHz

x dB

-26.00 dB

Frequency

Center Freq

5.23000000 GHz

CF Step

8.000000 MHz

Man

Freq Offset

0 Hz

Auto

MSO

STATUS

26dB Bandwidth

802.11a

802.11n HT20



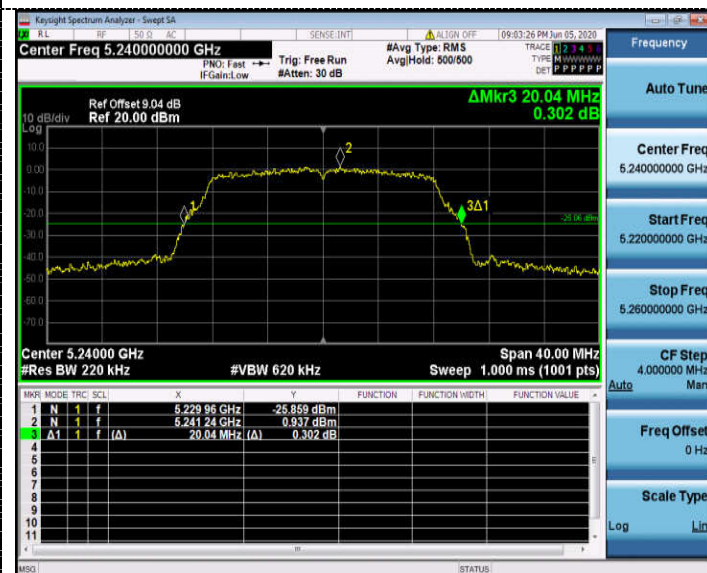
CH36

CH36



CH40

CH40



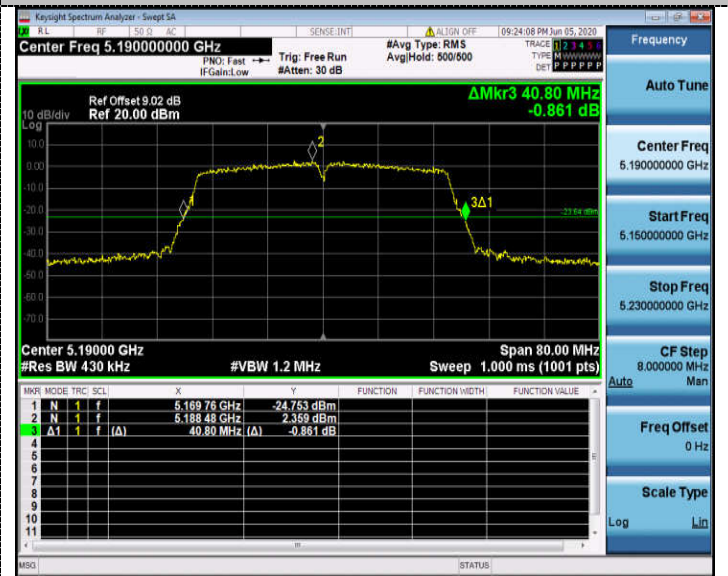
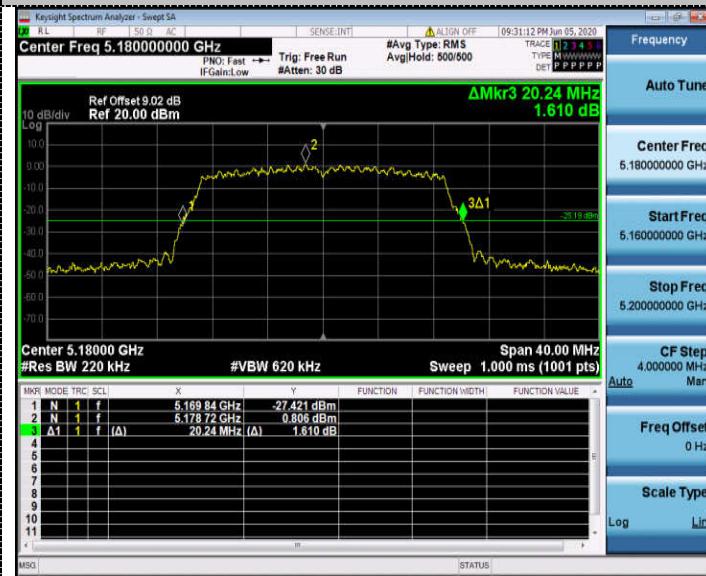
CH48

CH48

26dB Bandwidth

802.11ac20

802.11n HT40



CH36

CH38



CH40

CH46



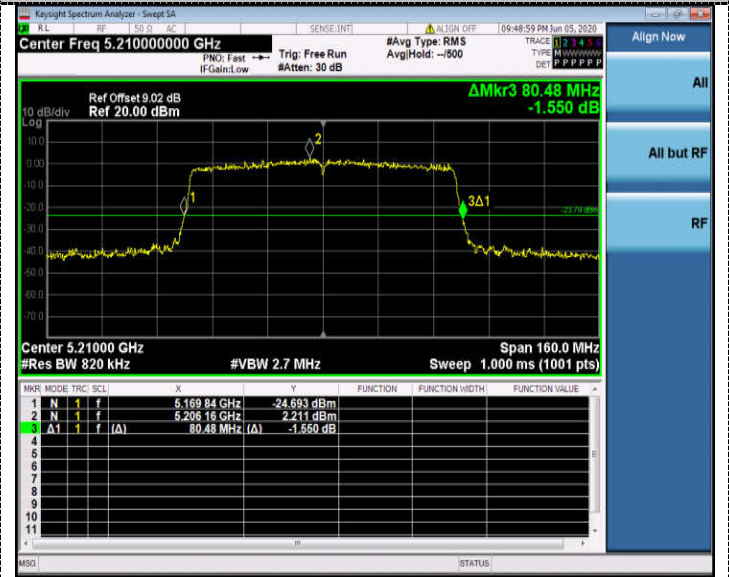
CH48

26dB Bandwidth

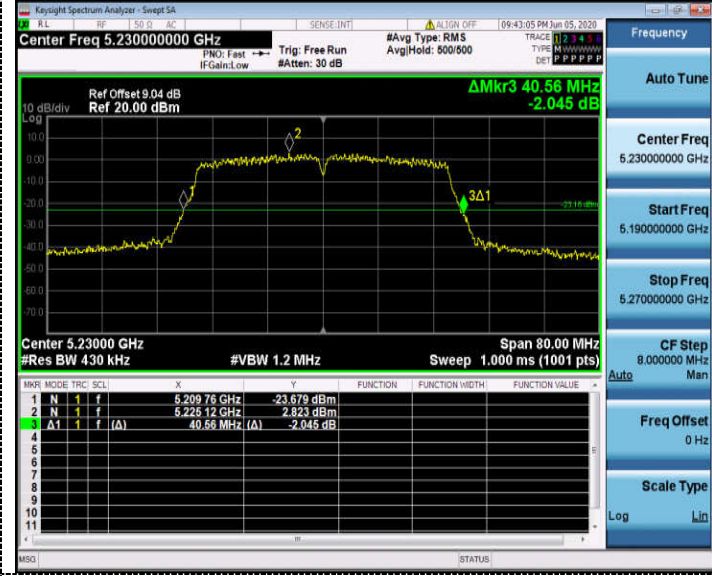
802.11ac40



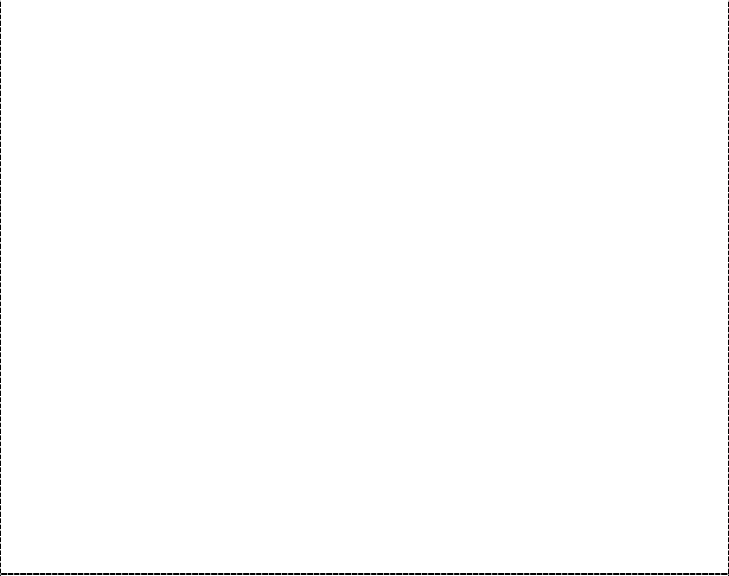
802.11ac80



CH38



CH42



CH46

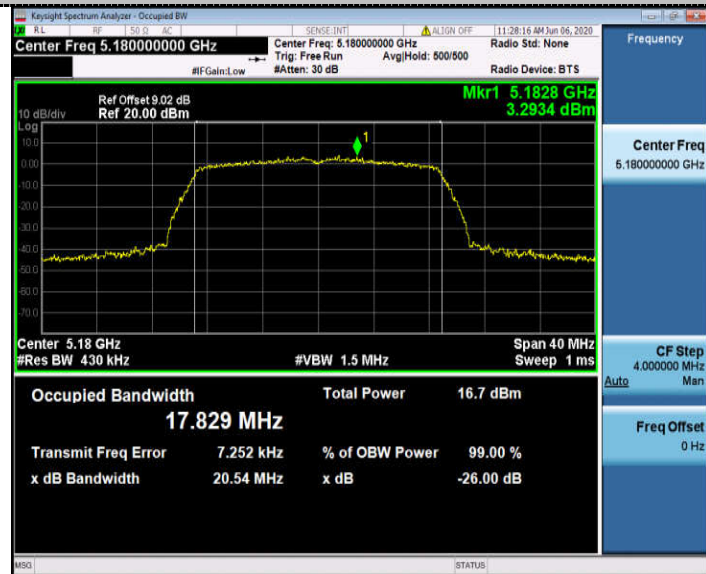
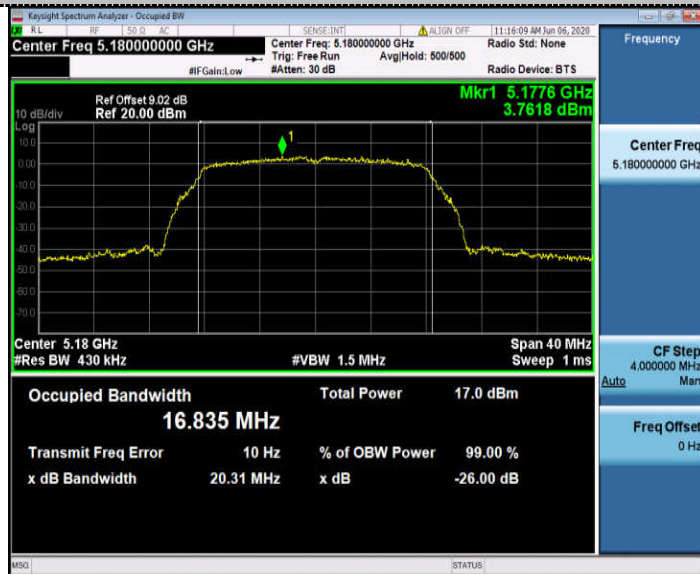


Antenna 3:

99%Bandwidth

802.11a

802.11n HT20



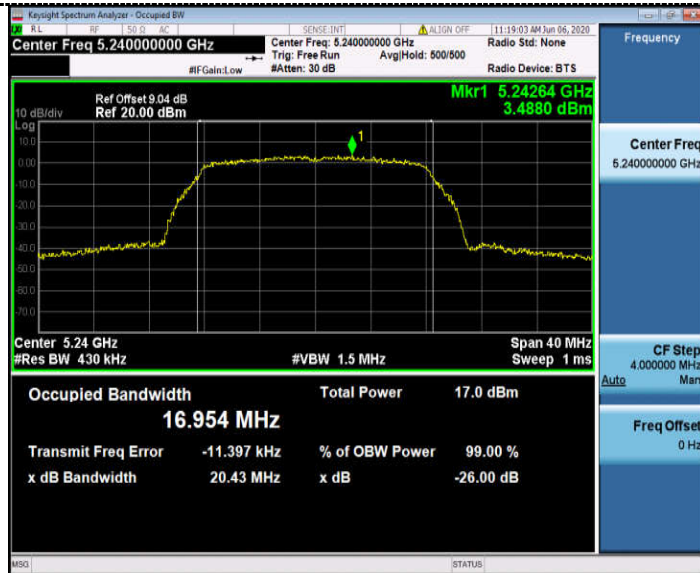
CH36

CH36



CH40

CH40



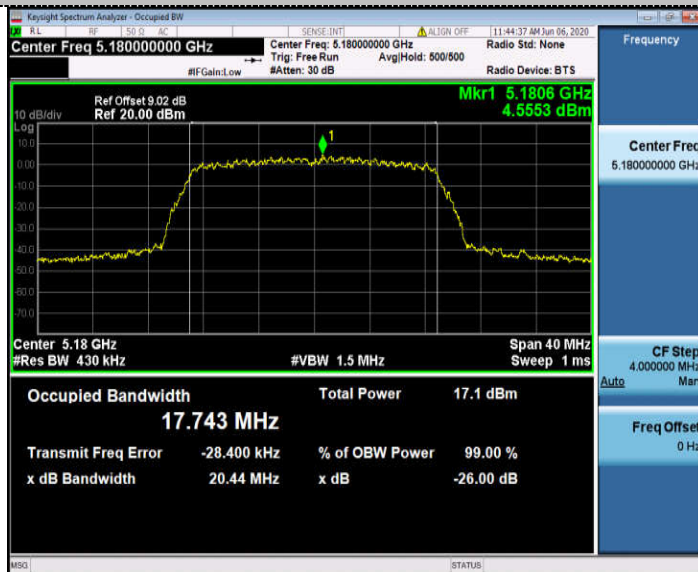
CH48

CH48

99%Bandwidth

802.11ac20

802.11n HT40



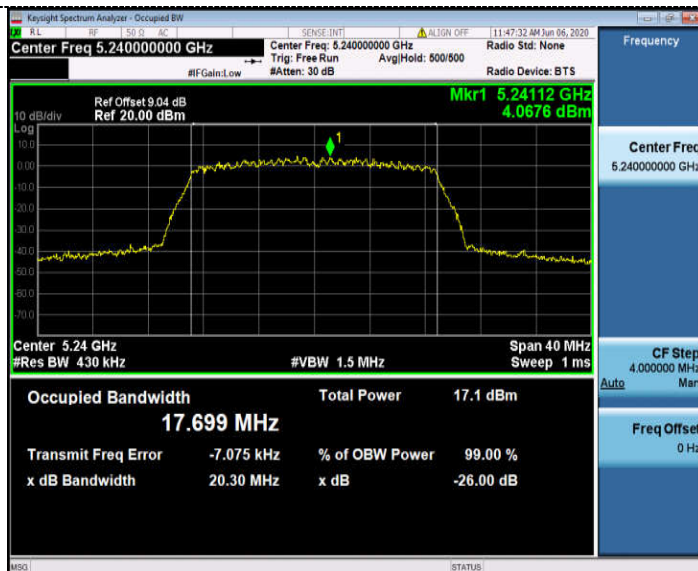
CH36

CH38



CH40

CH46



CH48



CH46

KeySight Spectrum Analyzer - Occupied BW

Center Freq 5.23000000 GHz

Center Freq: 5.23000000 GHz

Trig: Free Run

Avg/Hold: 500/500

Radio Std: None

Radio Device: BTS

Ref Offset 9.04 dB

Ref 20.00 dBm

Mkr1 5.23152 GHz

5.6589 dBm

10 dB/div

Log

Center 5.23 GHz

#Res BW 820 kHz

#VBW 3 MHz

Span 80 MHz

Sweep 1 ms

Occupied Bandwidth

36.124 MHz

Total Power

19.0 dBm

Transmit Freq Error

-22.313 kHz

% of OBW Power

99.00 %

x dB Bandwidth

40.79 MHz

x dB

-26.00 dB

Frequency

Center Freq

5.23000000 GHz

CF Step

8.000000 MHz

Man

Freq Offset

0 Hz

Auto

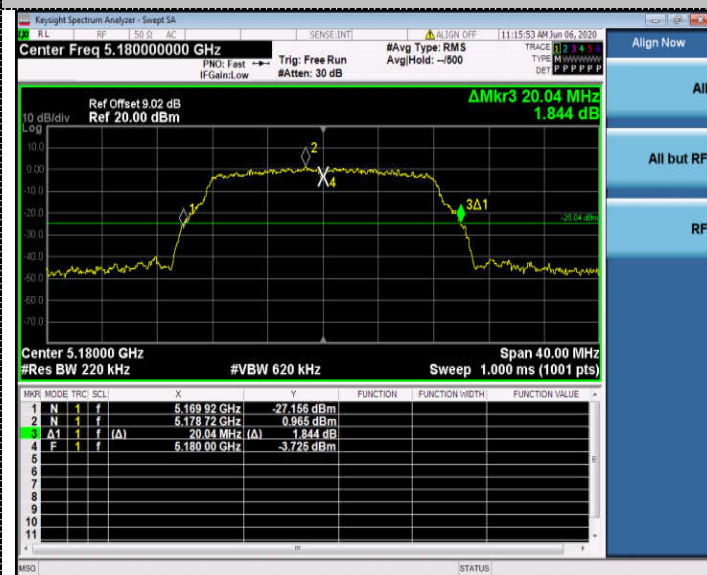
MSO

STATUS

26dB Bandwidth

802.11a

802.11n HT20



CH36

CH36



CH40

CH40



CH48

CH48

26dB Bandwidth

802.11ac20

802.11n HT40



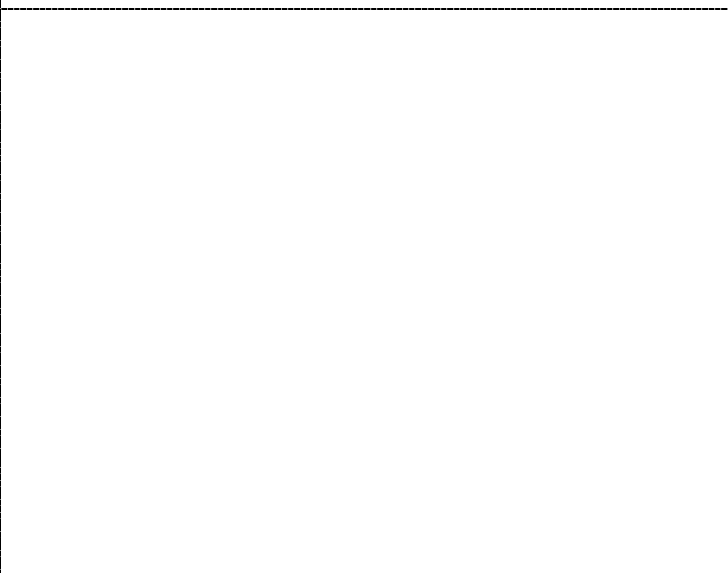
CH36

CH38



CH40

CH46



CH48