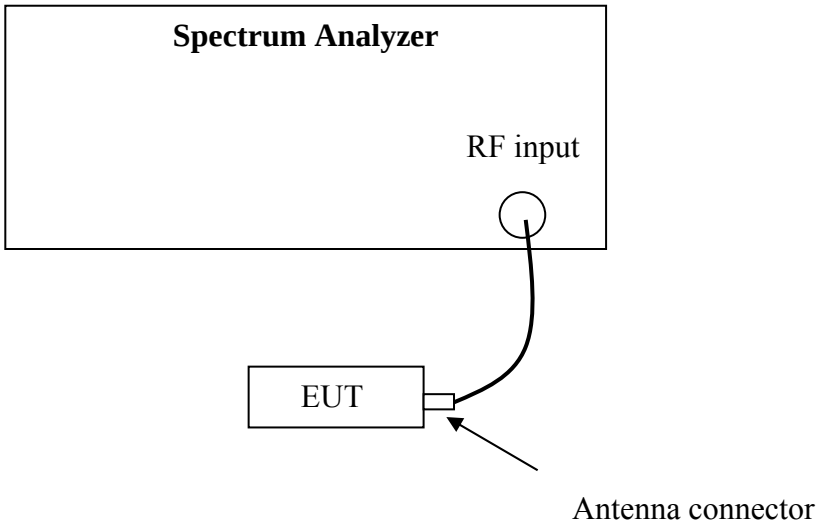
5. Minimum 6dB Bandwidth

Test result: PASS

5.1 Limit

For systems using digital modulation techniques that may operate in the 5725 - 5850 MHz band, the minimum 6 dB bandwidth shall be at least 500 kHz.

5.2 Test Configuration



5.3 Test Procedure and test setup

The minimum 6dB Bandwidth was measured from the antenna port of the EUT according to the measurement method refers to KDB 789033D02 v01: Section C.

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) 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.

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

5.4 Test Protocol

Temperature : 25 °C

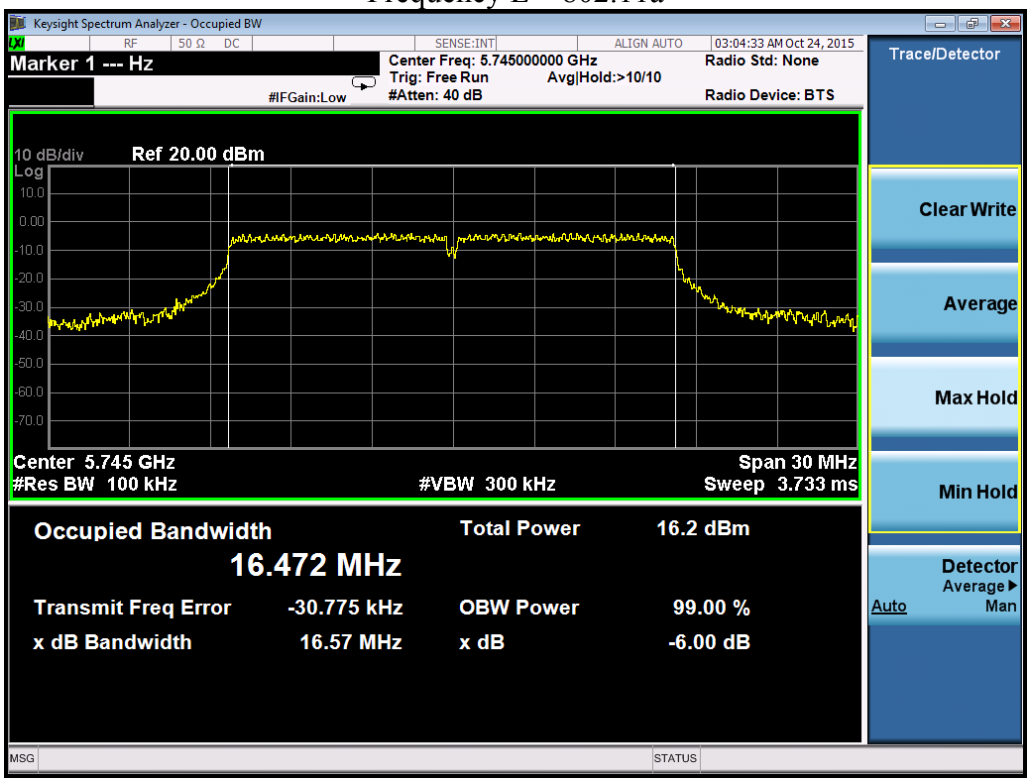
Relative Humidity : 55 %

Modulation	Frequency (MHz)	Minimum 6dB Bandwidth (MHz)		Limits (MHz)
		Port 0	Port 1	
802.11a	5745	16.57	16.56	≥0.5
	5785	16.37	16.56	≥0.5
	5825	16.57	16.56	≥0.5
802.11n20	5745	17.79	17.80	≥0.5
	5785	17.80	17.80	≥0.5
	5825	17.81	17.81	≥0.5
802.11n40	5755	36.56	36.59	≥0.5
	5795	36.57	36.57	≥0.5

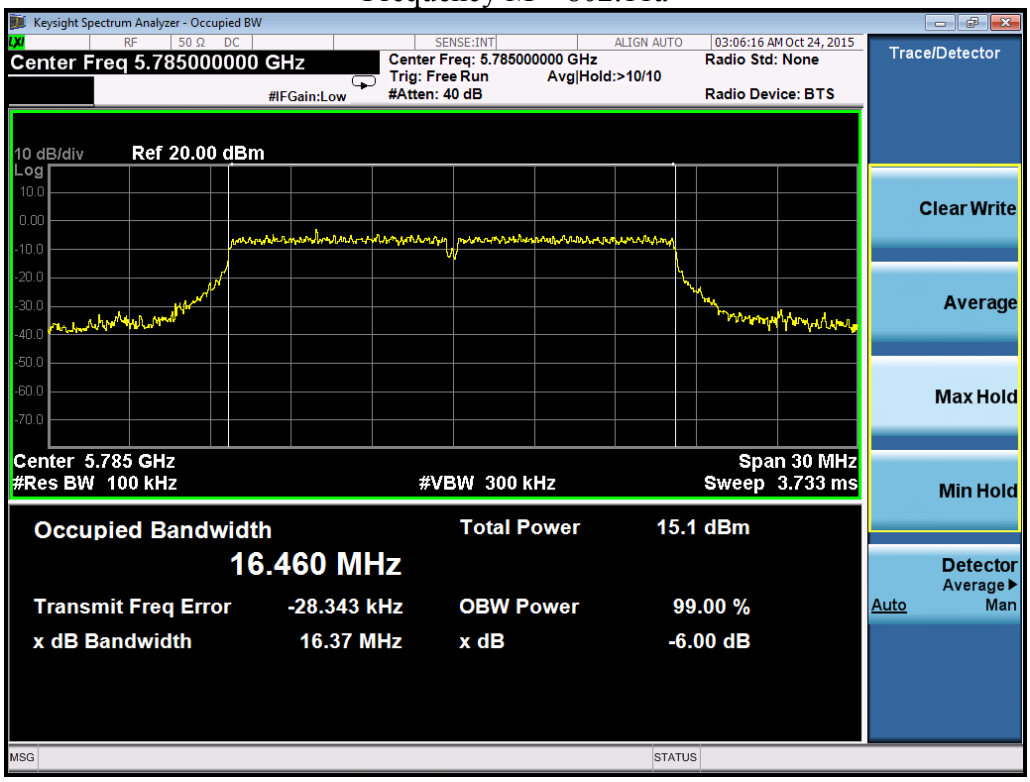
Test Plots as bellow:

Port 1

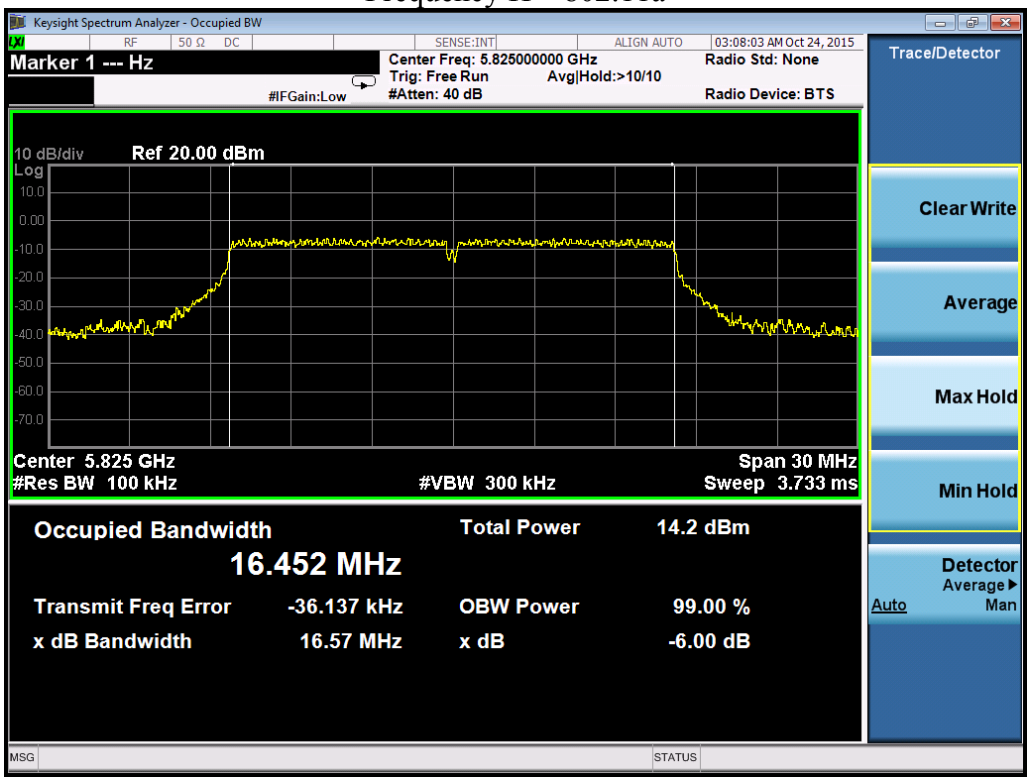
Frequency L – 802.11a



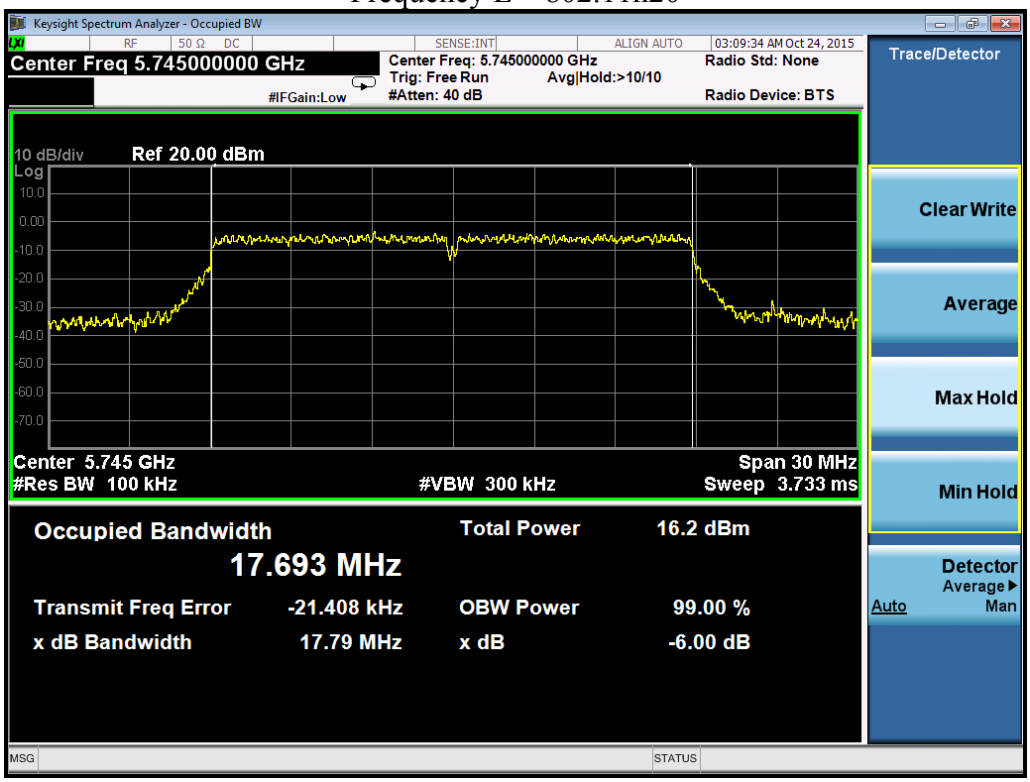
Frequency M – 802.11a



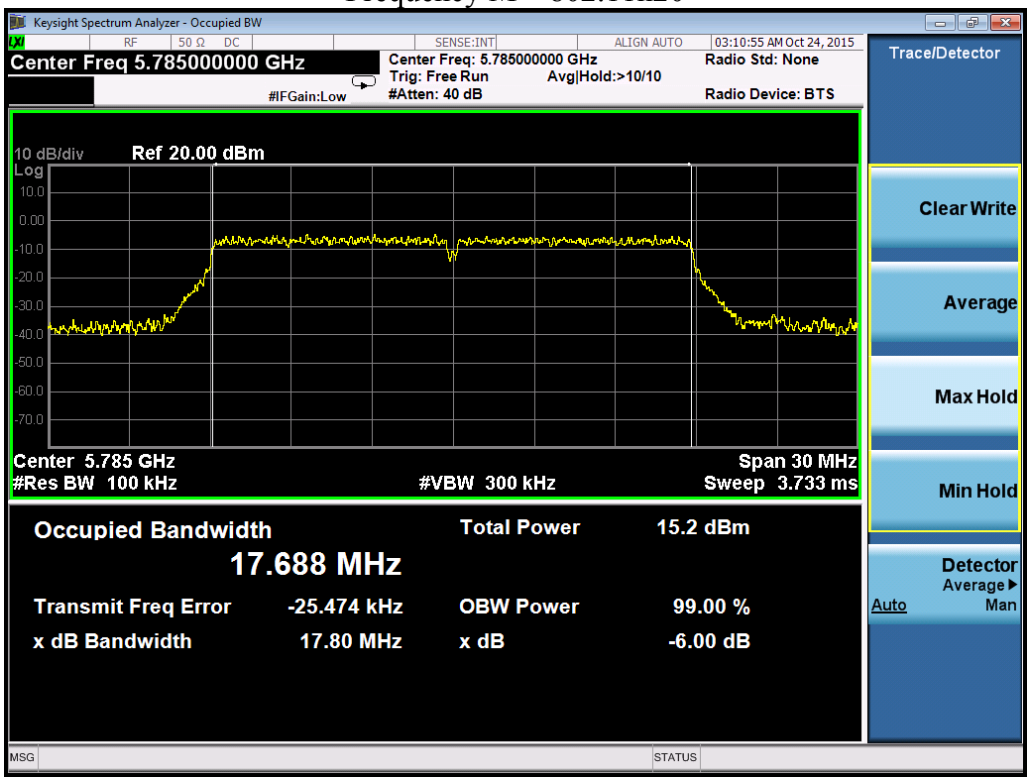
Frequency H – 802.11a



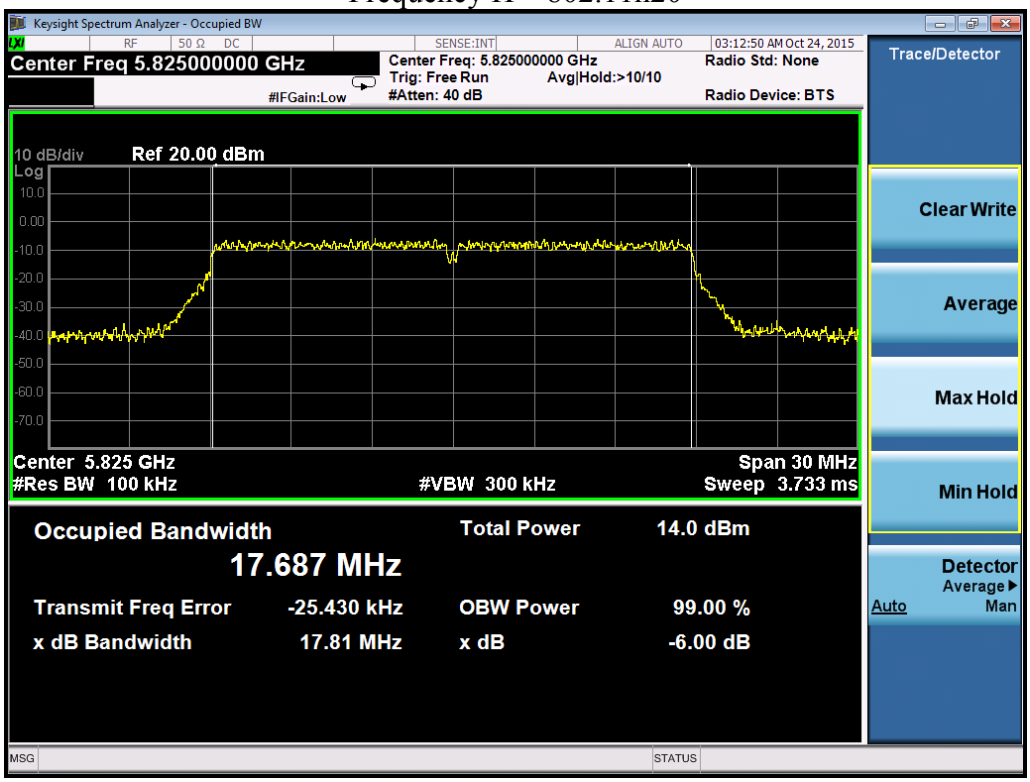
Frequency L – 802.11n20



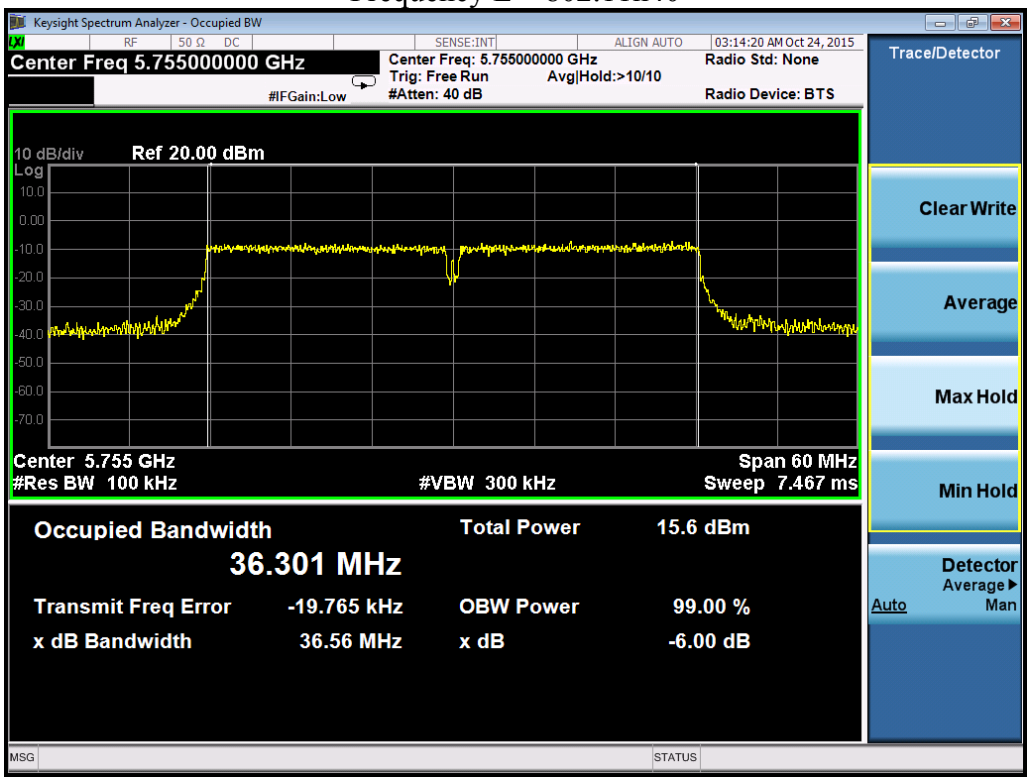
Frequency M – 802.11n20



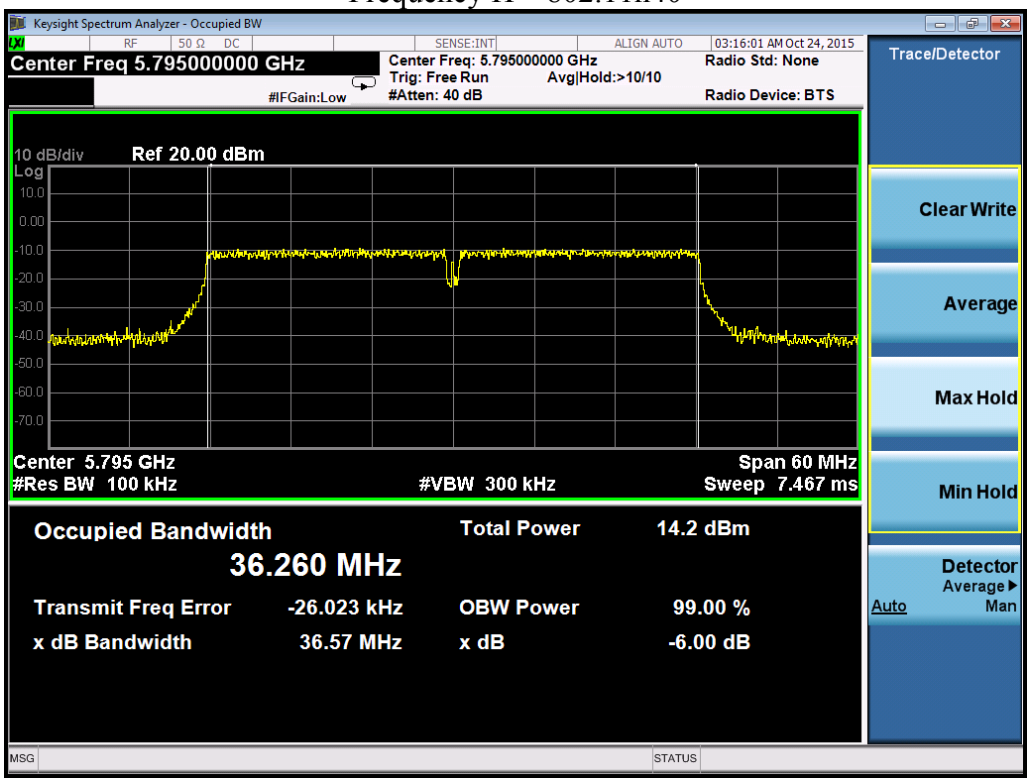
Frequency H – 802.11n20



Frequency L – 802.11n40

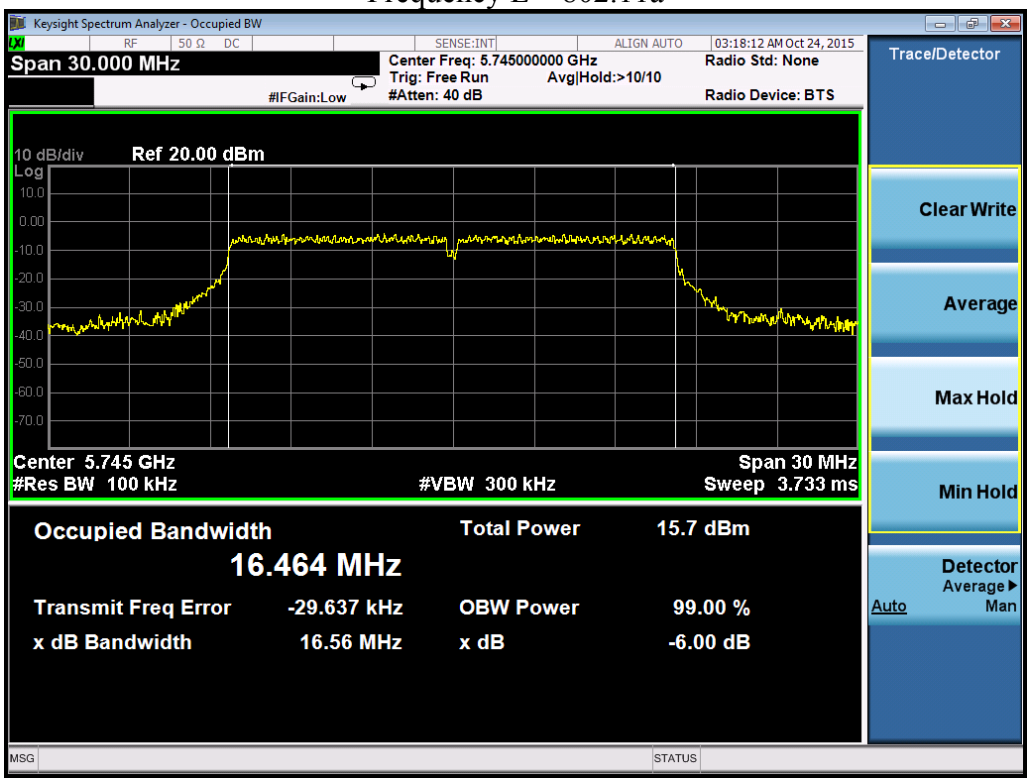


Frequency H – 802.11n40

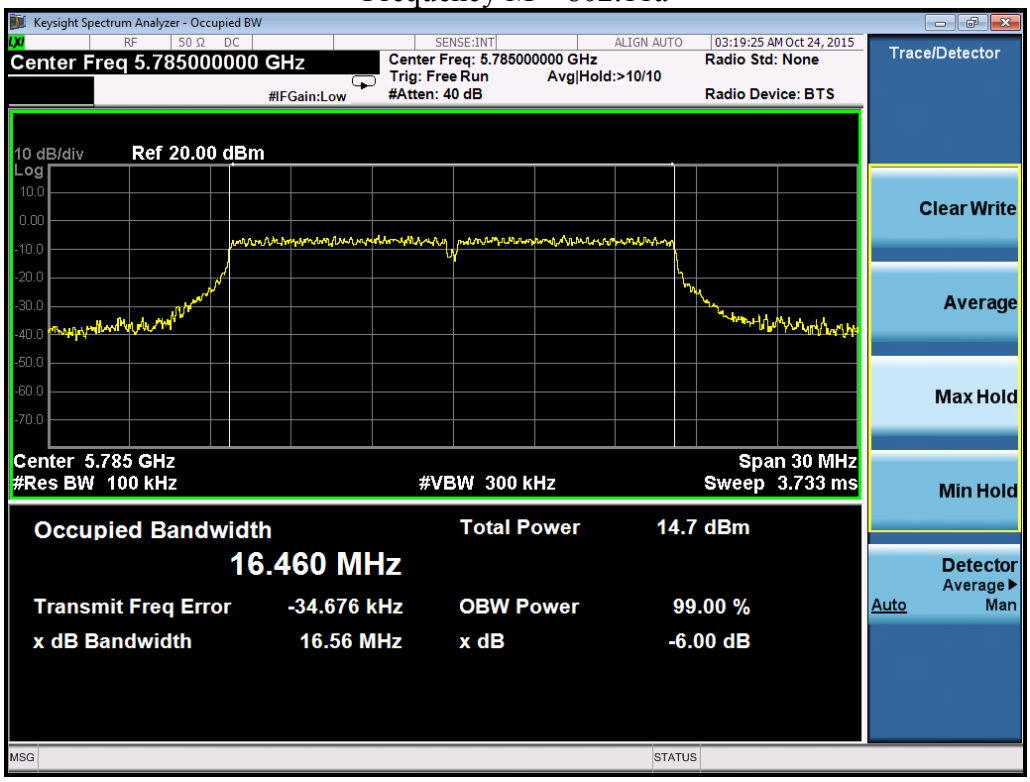


Port 2

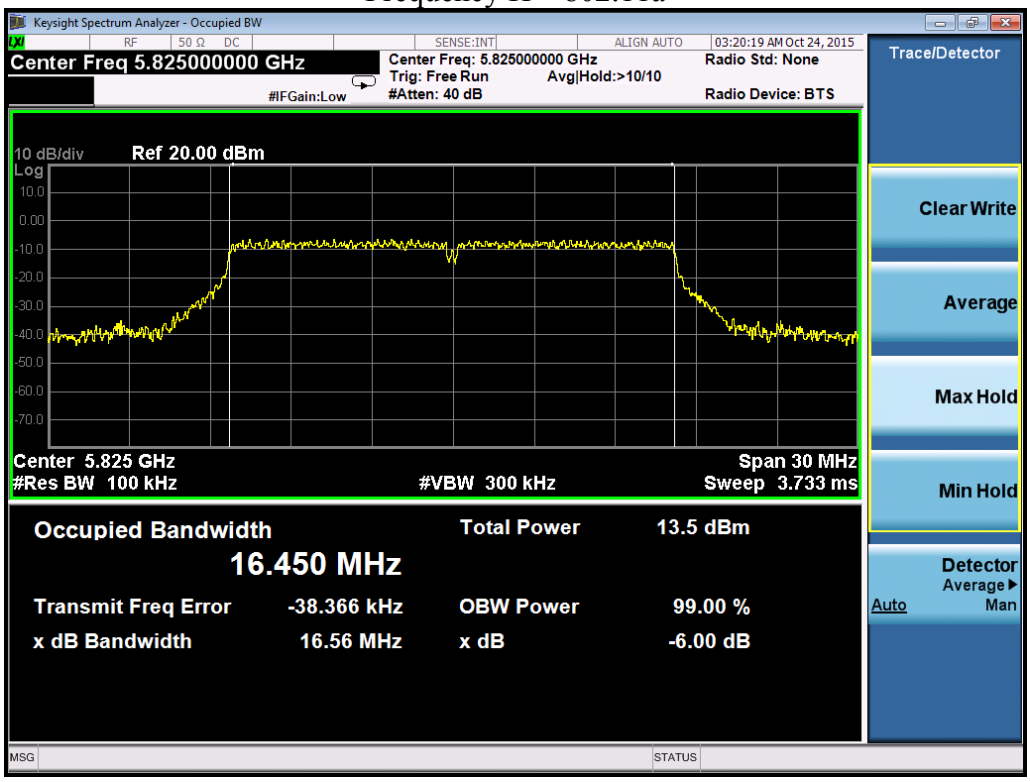
Frequency L – 802.11a



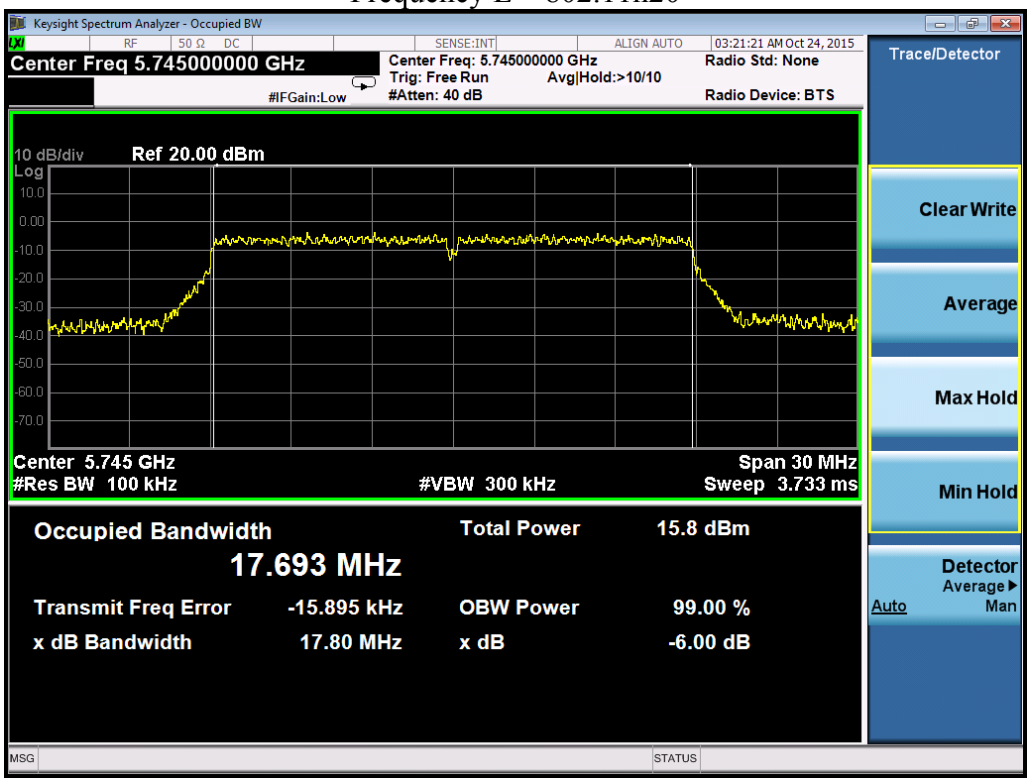
Frequency M – 802.11a



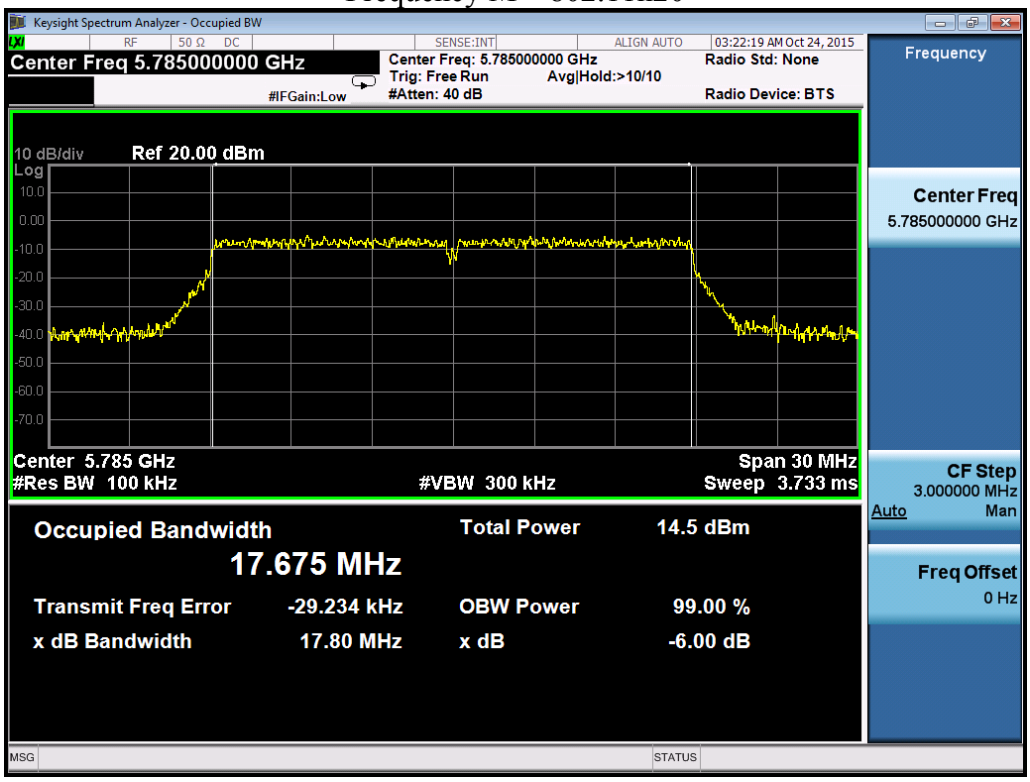
Frequency H – 802.11a



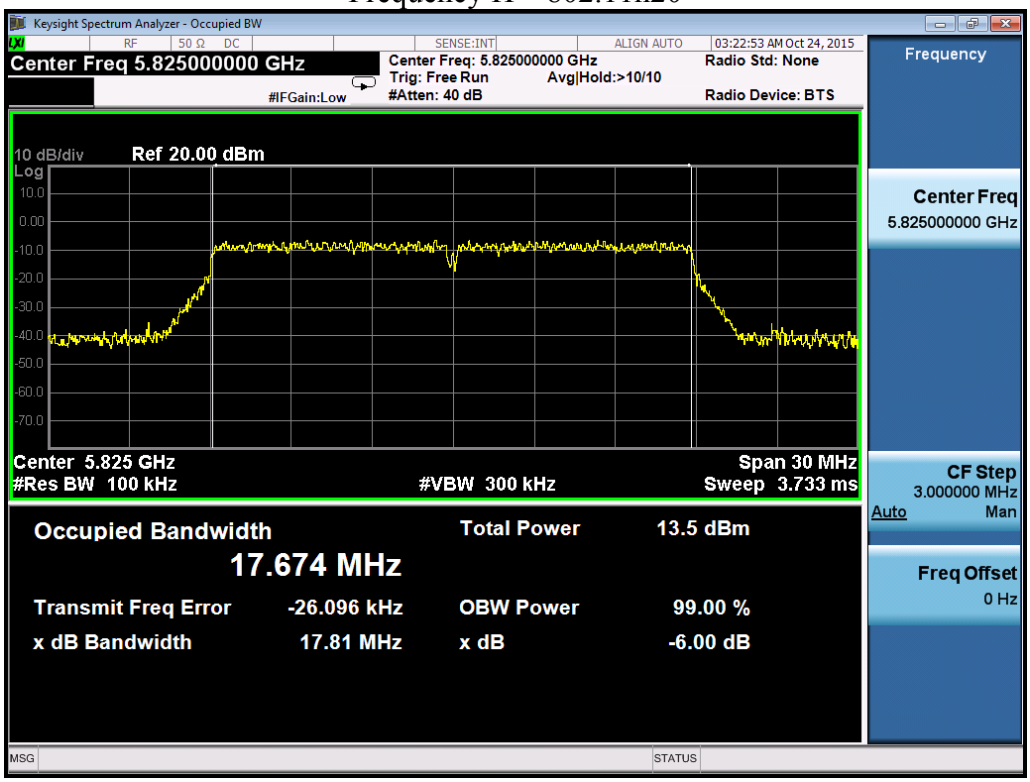
Frequency L – 802.11n20



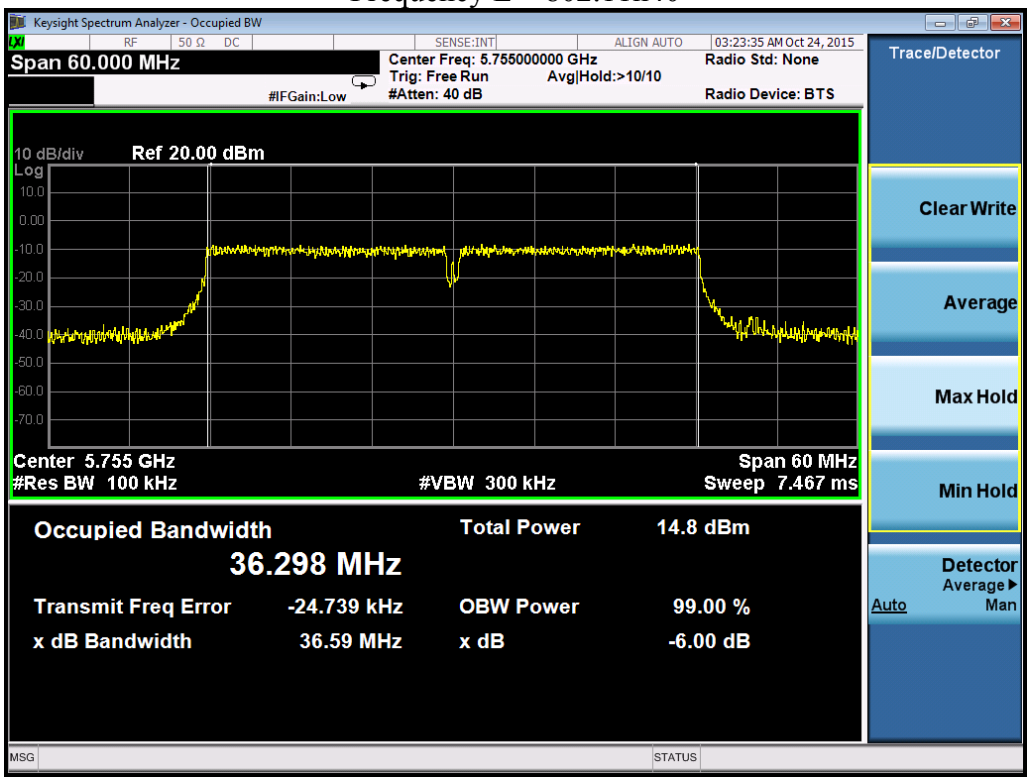
Frequency M – 802.11n20



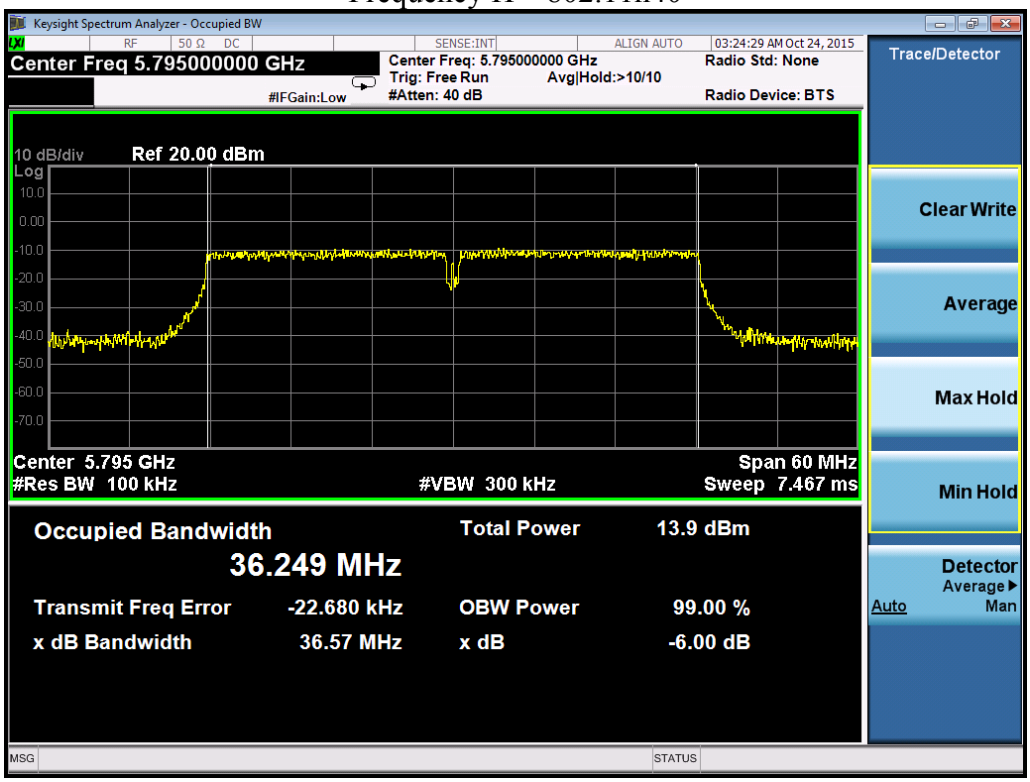
Frequency H – 802.11n20



Frequency L – 802.11n40



Frequency H – 802.11n40



6. Radiated emission

Test result: PASS

6.1 Test limit

6.1.1 The radiated emissions which are lower than 1GHz or fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) showed as below:

Frequency (MHz)	Field Strength (dBuV/m)	Measurement Distance (m)
30 - 88	40.0	3
88 - 216	43.5	3
216 - 960	46.0	3
Above 960	54.0	3

6.1.2 The emission which is outside the restrict bands, should comply with the EIRP limit as below:

For transmitters operating in the 5.15–5.25 / 5.25 – 5.35 / 5.47 – 5.725 GHz band: all emissions outside of the 5.15 – 5.35 / 5.47 – 5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.

EIRP Limit (dBm)	Equivalent Field Strength (3m) (dBμV/m)
-27	68.20

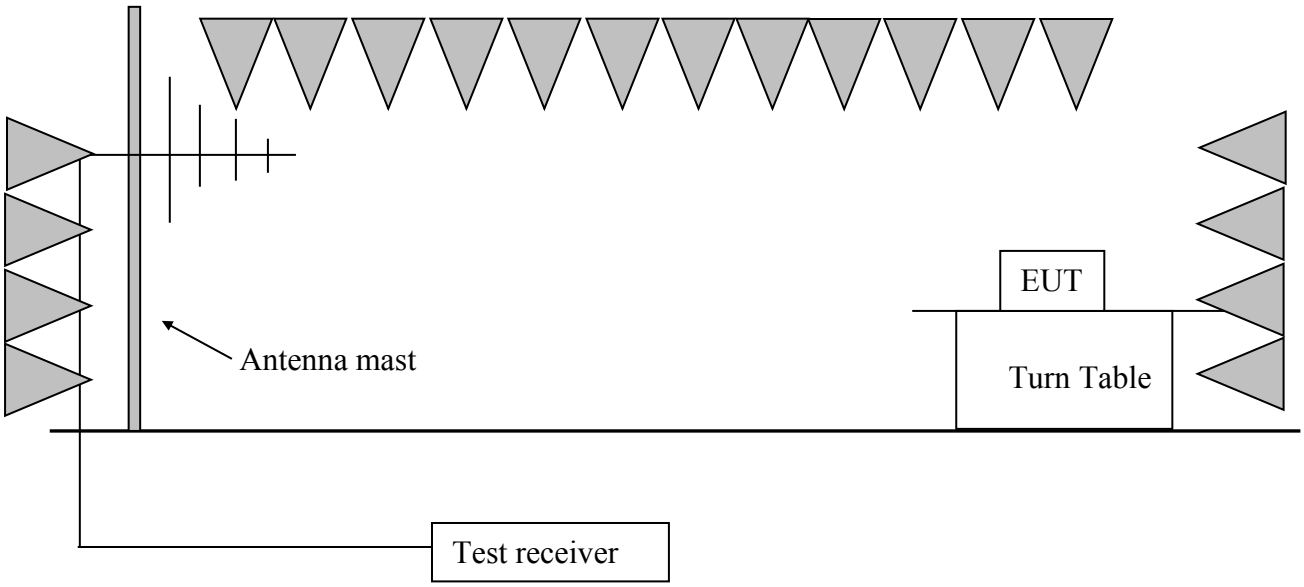
For transmitters operating in the 5.725 – 5.85GHz band: emission among 5.715 – 5.725GHz & 5.85 – 5.86GHz shall not exceed an EIRP of -17dBm/MHz all emissions outside band shall not exceed an EIRP of -27dBm/MHz.

EIRP Limit (dBm)	Equivalent Field Strength (3m) (dBμV/m)
-27	68.20
-17	78.20

Assessed with 15.209(a):

Frequency (MHz)	Field Strength (dBuV/m)	Measurement Distance (m)
30 - 88	40.0	3
88 - 216	43.5	3
216 - 960	46.0	3
Above 960	54.0	3

6.2 Test Configuration



6.3 Test procedure and test setup

The measurement was applied in a semi-anechoic chamber. While testing for spurious emission higher than 1GHz, if applied, the pre-amplifier would be equipped just at the output terminal of the antenna.
The EUT and simulators were placed on a 0.8m high wooden turntable above the horizontal metal ground plane. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna which was mounted on an antenna mast. The antenna moved up and down between from 1meter to 4 meters to find out the maximum emission level.
The EUT was tested according to KDB 789033D02 v01: Section G.

The radiated emission was measured using the Spectrum Analyzer with the resolutions bandwidth set as:

RBW = 100kHz, VBW = 300kHz (30MHz~1GHz)
RBW = 1MHz, VBW = 3MHz (>1GHz for PK);
RBW = 1MHz, VBW = 10Hz (>1GHz for AV);

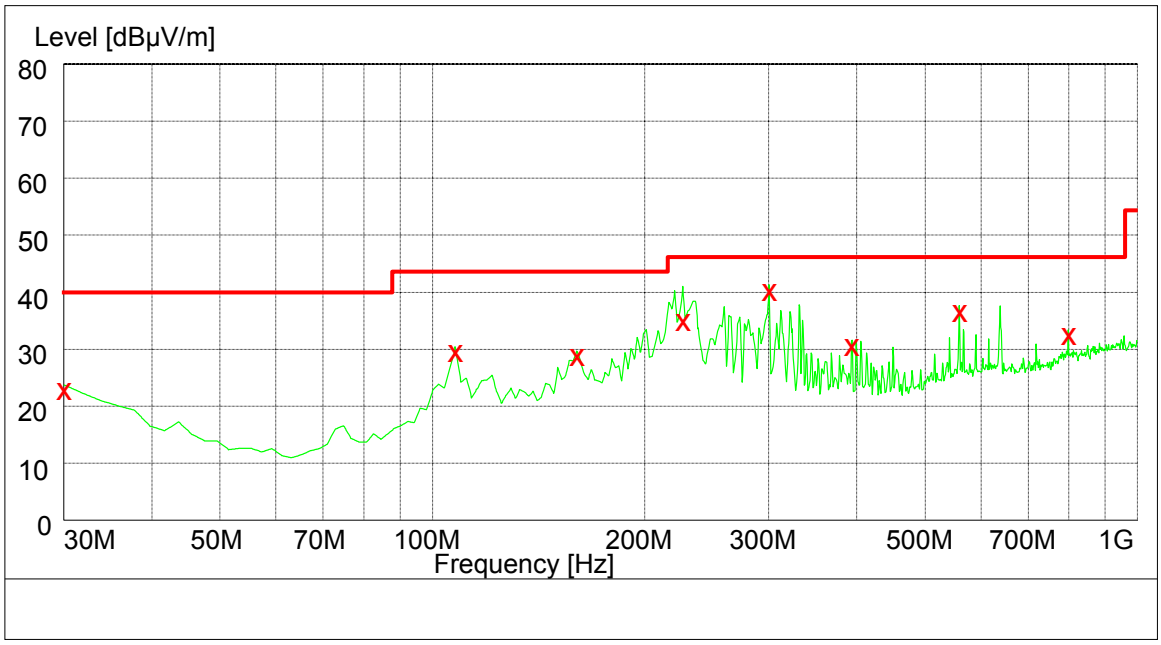
6.4 Test protocol

Temperature	:	25 °C
Relative Humidity	:	55 %

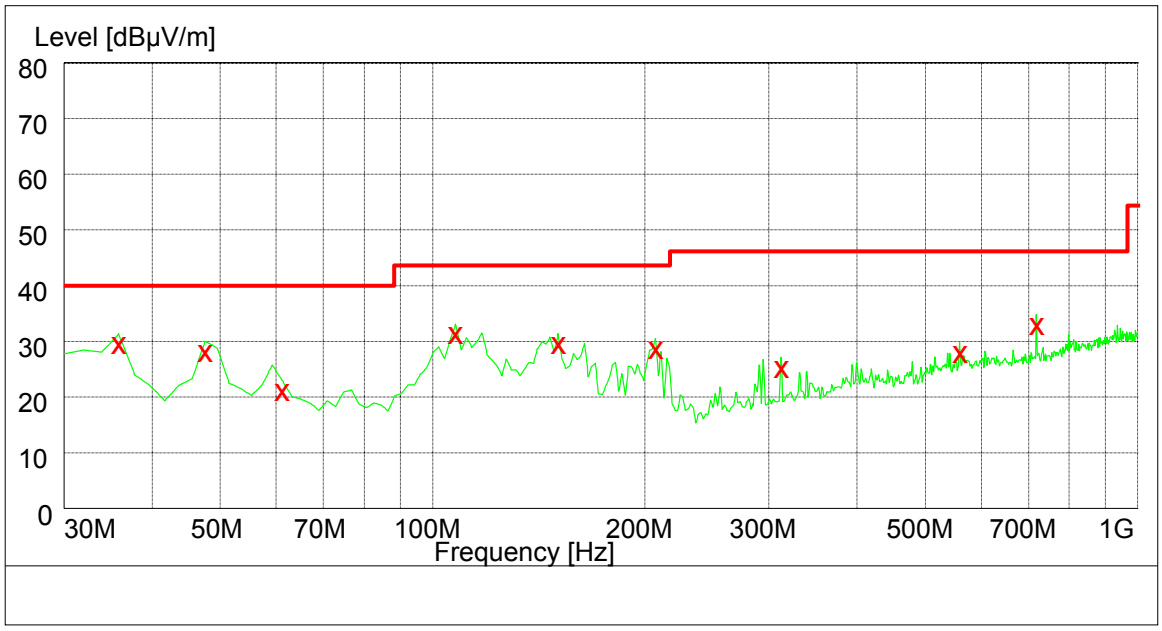
Test result below 1GHz:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Horizontal



Vertical



30MHz~1GHz, Test data:

Polarization	Frequency (MHz)	Measured level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
H	30.0	24.7	40.0	15.3	PK
	107.8	31.3	43.5	12.2	PK
	160.2	30.5	43.5	13.0	PK
	226.3	36.6	46.0	9.4	QP
	300.2	41.9	46.0	4.1	PK
	393.5	32.3	46.0	13.7	PK
	558.7	38.3	46.0	7.7	PK
	797.8	34.2	46.0	11.8	PK
V	35.8	31.3	40.0	8.7	PK
	47.5	30.0	40.0	10.0	PK
	61.1	23.0	40.0	17.0	PK
	107.8	33.1	43.5	10.4	PK
	150.5	31.4	43.5	12.1	PK
	206.9	30.5	43.5	13.0	PK
	311.9	27.1	46.0	18.9	PK
	558.7	29.8	46.0	16.2	PK
	718.1	34.8	46.0	11.2	PK

Note: The worst test result (30MHz to 1GHz) of channel L (802.11a 5180MHz) was chosen to list in the report as representative.

Test result above 1GHz:

The emission was conducted from 1GHz to 25GHz.

U-NII-1 Band:

802.11a

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5180	-2.71	98.55	Fundamental	/	PK
	H&V	5150	-2.77	50.25	74.00	23.75	PK
	H&V	10360	5.98	59.57	74.00	14.43	PK
	H&V	10360	5.98	44.91	54.00	9.09	AV
M	H&V	5200	-2.67	98.25	Fundamental	/	PK
	H&V	10400	6.09	59.10	74.00	14.90	PK
	H&V	10400	6.09	44.60	54.00	9.40	AV
H	H&V	5240	-2.60	99.13	Fundamental	/	PK
	H&V	10480	6.30	57.57	74.00	16.43	PK
	H&V	10480	6.30	42.46	54.00	11.54	AV

802.11n20

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5180	-2.71	97.66	Fundamental	/	PK
	H&V	5150	-2.77	50.25	74.00	23.75	PK
	H&V	10360	5.98	59.85	74.00	14.15	PK
	H&V	10360	5.98	44.65	54.00	9.35	AV
M	H&V	5200	-2.67	97.47	Fundamental	/	PK
	H&V	10400	6.09	58.25	74.00	15.75	PK
	H&V	10400	6.09	43.61	54.00	10.39	AV
H	H&V	5240	-2.60	97.43	Fundamental	/	PK
	H&V	10480	6.30	57.25	74.00	16.75	PK
	H&V	10480	6.30	42.12	54.00	11.88	AV

802.11n40

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5190	-2.69	96.58	Fundamental	/	PK
	H&V	5150	-2.77	51.66	74.00	22.34	PK
	H&V	10380	6.03	58.25	74.00	15.75	PK
	H&V	10380	6.03	43.65	54.00	10.35	AV
H	H&V	5230	-2.62	96.47	Fundamental	/	PK
	H&V	10460	6.25	57.26	74.00	16.74	PK
	H&V	10460	6.25	42.81	54.00	11.19	AV

U-NII-2A Band:

802.11a

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5260	-2.56	98.55	Fundamental	/	PK
	H&V	10520	6.35	59.58	74.00	14.42	PK
	H&V	10520	6.35	43.95	54.00	10.05	AV
M	H&V	5300	-2.48	98.87	Fundamental	/	PK
	H&V	10600	6.37	59.26	74.00	14.74	PK
	H&V	10600	6.37	43.36	54.00	10.64	AV
H	H&V	5320	-2.45	99.25	Fundamental	/	PK
	H&V	5350	-2.39	49.88	74.00	24.12	PK
	H&V	10640	6.37	58.21	74.00	15.79	PK
	H&V	10640	6.37	43.12	54.00	10.88	AV

802.11n20

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5260	-2.56	97.85	Fundamental	/	PK
	H&V	10520	6.35	58.58	74.00	15.42	PK
	H&V	10520	6.35	43.28	54.00	10.72	AV
M	H&V	5300	-2.48	97.46	Fundamental	/	PK
	H&V	10600	6.37	59.02	74.00	14.98	PK
	H&V	10600	6.37	44.01	54.00	9.99	AV
H	H&V	5320	-2.45	97.74	Fundamental	/	PK
	H&V	5350	-2.39	49.89	74.00	24.11	PK
	H&V	10640	6.37	57.68	74.00	16.32	PK
	H&V	10640	6.37	42.85	54.00	11.15	AV

802.11n40

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5270	-2.54	95.74	Fundamental	/	PK
	H&V	10540	6.36	58.26	74.00	15.74	PK
	H&V	10540	6.36	42.86	54.00	11.14	AV
H	H&V	5310	-2.46	96.56	Fundamental	/	PK
	H&V	5350	-2.39	51.55	74.00	22.45	PK
	H&V	10620	6.37	57.66	74.00	16.34	PK
	H&V	10620	6.37	42.14	54.00	11.86	AV

U-NII-2C Band:

802.11a

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5500	-2.11	96.21	Fundamental	/	PK
	H&V	5460	-2.18	49.22	74.00	24.78	PK
	H&V	11000	6.43	57.68	74.00	16.32	PK
	H&V	11000	6.43	42.14	54.00	11.86	AV
M	H&V	5580	-1.97	96.26	Fundamental	/	PK
	H&V	11160	7.33	57.68	74.00	16.32	PK
	H&V	11160	7.33	42.63	54.00	11.37	AV
H	H&V	5700	-1.75	95.05	Fundamental	/	PK
	H&V	11400	7.21	56.89	74.00	17.11	PK
	H&V	11400	7.21	41.98	54.00	12.02	AV

802.11n20

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5500	-2.11	96.21	Fundamental	/	PK
	H&V	5460	-2.18	49.33	74.00	24.78	PK
	H&V	11000	6.43	57.68	74.00	16.32	PK
	H&V	11000	6.43	42.14	54.00	11.86	AV
M	H&V	5580	-1.97	97.26	Fundamental	/	PK
	H&V	11160	7.33	57.68	74.00	16.32	PK
	H&V	11160	7.33	42.63	54.00	11.37	AV
H	H&V	5700	-1.75	96.05	Fundamental	/	PK
	H&V	11400	7.21	56.89	74.00	17.11	PK
	H&V	11400	7.21	41.98	54.00	12.02	AV

802.11n40

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5510	-2.09	95.68	Fundamental	/	PK
	H&V	5460	-2.18	50.21	74.00	23.79	PK
	H&V	11020	6.47	58.71	74.00	15.29	PK
	H&V	11020	6.47	43.25	54.00	10.75	AV
M	H&V	5550	-2.02	94.65	Fundamental	/	PK
	H&V	11100	6.63	58.79	74.00	15.21	PK
	H&V	11100	6.63	43.62	54.00	10.38	AV
H	H&V	5670	-1.81	95.37	Fundamental	/	PK
	H&V	11340	7.09	57.87	74.00	16.13	PK
	H&V	11340	7.09	42.91	54.00	11.09	AV

U-NII-3 Band:

802.11a

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5745	-1.67	98.65	Fundamental	/	PK
	H&V	5715	-1.67	48.56	68.00	19.44	PK
	H&V	11490	7.38	57.60	74.00	16.40	PK
	H&V	11490	7.38	42.50	54.00	11.50	AV
M	H&V	5785	-1.60	98.64	Fundamental	/	PK
	H&V	11570	7.35	57.10	74.00	16.90	PK
	H&V	11570	7.35	42.30	54.00	11.70	AV
H	H&V	5825	-1.54	98.14	Fundamental	/	PK
	H&V	5860	-1.54	48.45	68.00	19.55	PK
	H&V	11650	7.29	57.40	74.00	16.60	PK
	H&V	11650	7.29	42.30	54.00	11.70	AV

802.11n20

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5745	-1.67	96.88	Fundamental	/	PK
	H&V	5715	-1.67	50.22	68.00	17.78	PK
	H&V	11490	7.38	57.40	74.00	16.60	PK
	H&V	11490	7.38	42.30	54.00	11.70	AV
M	H&V	5785	-1.60	96.68	Fundamental	/	PK
	H&V	11570	7.35	57.30	74.00	16.70	PK
	H&V	11570	7.35	42.40	54.00	11.60	AV
H	H&V	5825	-1.54	96.73	Fundamental	/	PK
	H&V	5860	-1.54	49.85	68.00	18.15	PK
	H&V	11650	7.29	57.25	74.00	16.75	PK
	H&V	11650	7.29	42.15	54.00	11.85	AV

802.11n40

Channel	Polarity	Frequency (MHz)	Correct Factor (dB/m)	Corrected Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
L	H&V	5755	-1.66	95.67	Fundamental	/	PK
	H&V	5715	-1.67	51.36	68.00	16.64	PK
	H&V	11510	7.39	57.40	74.00	16.60	PK
	H&V	11510	7.39	42.50	54.00	11.50	AV
H	H&V	5795	-1.59	95.18	Fundamental	/	PK
	H&V	5860	-1.54	51.25	68.00	16.75	PK
	H&V	11590	7.33	57.40	74.00	16.60	PK
	H&V	11590	7.33	42.50	54.00	11.50	AV

Remark:
1. For fundamental & restrict emission test, no amplifier is employed.
2. Factor = Antenna Factor + Cable Loss (-Amplifier, is employed);
3. Measure level = Reading Level + Factor;
4. Over Limit = Measure level – limit;
5. If the PK reading is lower than AV limit, the AV test can be elided.

Example:

Assuming Antenna Factor = 30.20dB/m, Cable Loss = 2.00dB,
Gain of Preamplifier = 32.00dB, Original Receiver Reading level = 10dBuV.
Then Factor = 30.20 + 2.00 – 32.00 = 0.20dB/m;
Measure level = 10dBuV + 0.20dB/m = 10.20dBuV/m
Assuming limit = 54dBuV/m, Measure level = 10.20dBuV/m,
then Over Limit = 10.20 - 54= -43.80dBuV/m

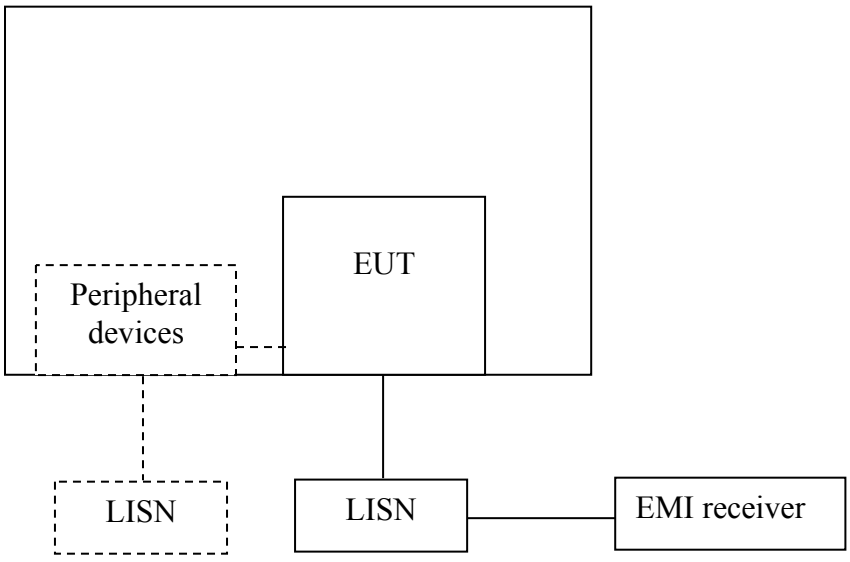
7. Power line conducted emission

Test result: **Pass**

7.1 Limit

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	QP	AV
0.15-0.5	66 to 56*	56 to 46 *
0.5-5	56	46
5-30	60	50
* Decreases with the logarithm of the frequency.		

7.2 Test configuration



☒ For table top equipment, wooden support is 0.8m height table

☐ For floor standing equipment, wooden support is 0.1m height rack.

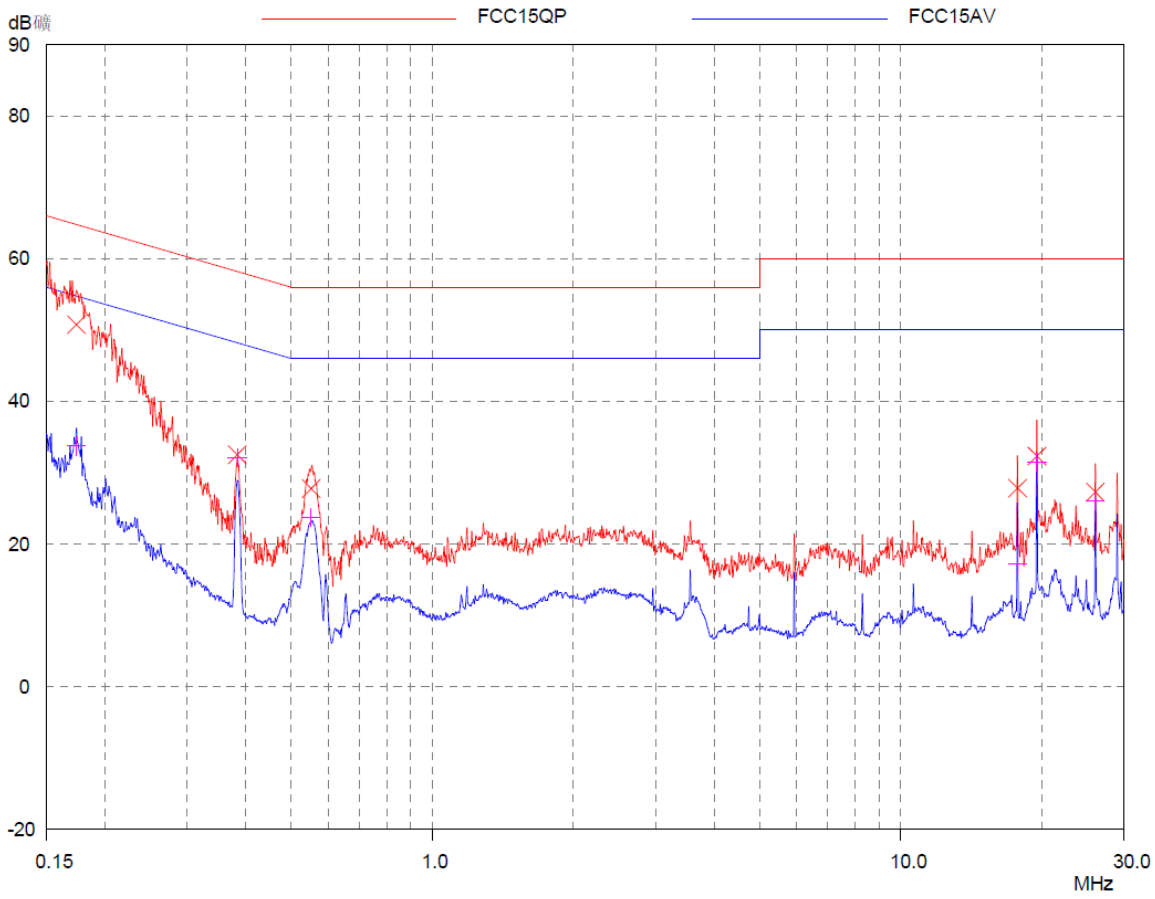
7.3 Test procedure and test set up

The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50Ω/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50Ω/50uH coupling impedance with 50Ω termination.
Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4 on conducted measurement.
The bandwidth of the test receiver is set at 9 kHz.

7.4 Test protocol

Temperature : 25 °C
Relative Humidity : 55 %

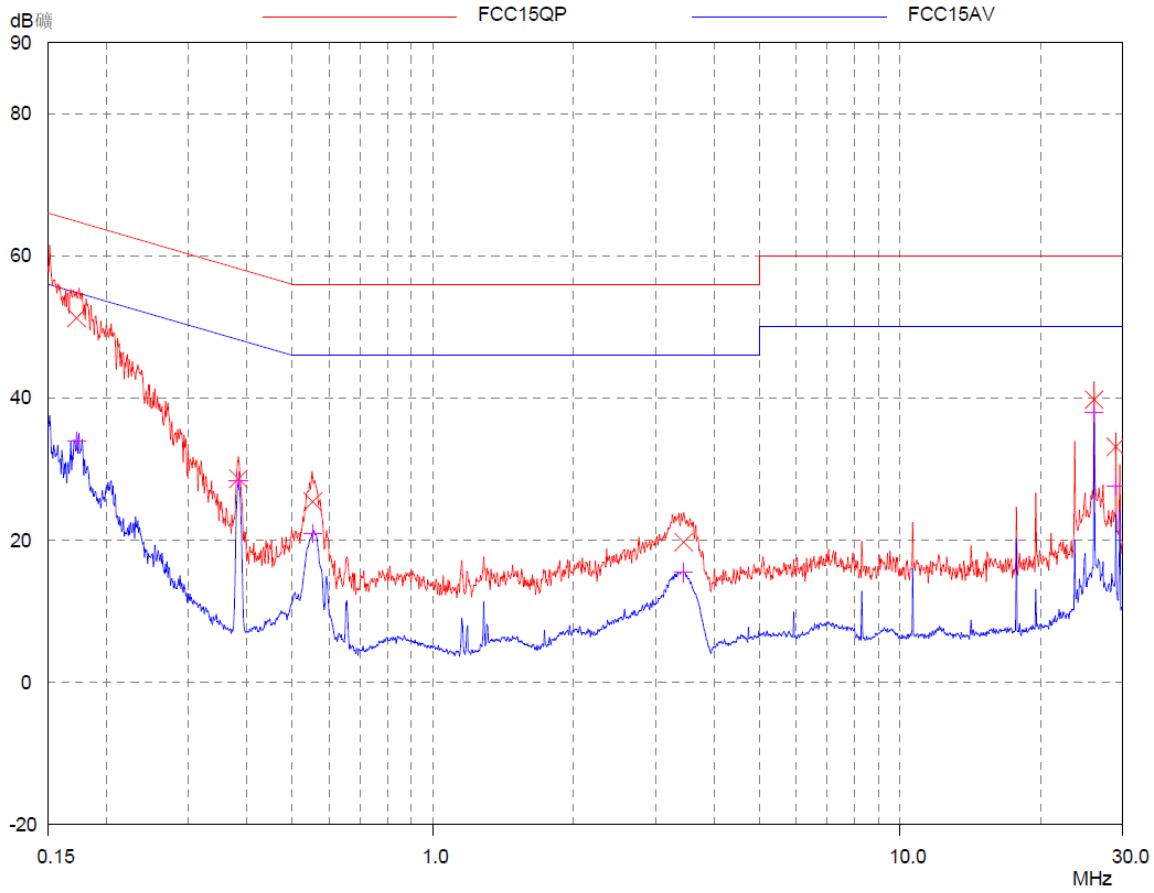
L line



Test Data:

Frequency (MHz)	Quasi-peak			Average		
	level dB(μV)	Limit dB(μV)	Margin (dB)	level dB(μV)	limit dB(μV)	Margin (dB)
0.17	50.78	64.77	13.99	33.75	54.77	21.02
0.38	32.52	58.21	25.69	32.13	48.21	16.08
0.55	27.78	56.00	28.22	23.70	46.00	22.30
17.77	27.82	60.00	32.18	17.26	50.00	32.74
19.55	32.34	60.00	27.66	31.49	50.00	18.51
26.06	27.29	60.00	32.71	26.05	50.00	23.95

N line



Test Data:

Frequency (MHz)	Quasi-peak			Average		
	level dB(μV)	Limit dB(μV)	Margin (dB)	level dB(μV)	limit dB(μV)	Margin (dB)
0.17	51.26	64.84	13.58	33.93	54.84	20.91
0.38	28.66	58.21	29.55	28.39	48.21	19.82
0.55	25.42	56.00	30.58	20.97	46.00	25.03
3.44	19.71	56.00	36.29	15.48	46.00	30.52
26.06	39.76	60.00	20.24	37.96	50.00	12.04
29.03	33.14	60.00	26.86	27.63	50.00	22.37

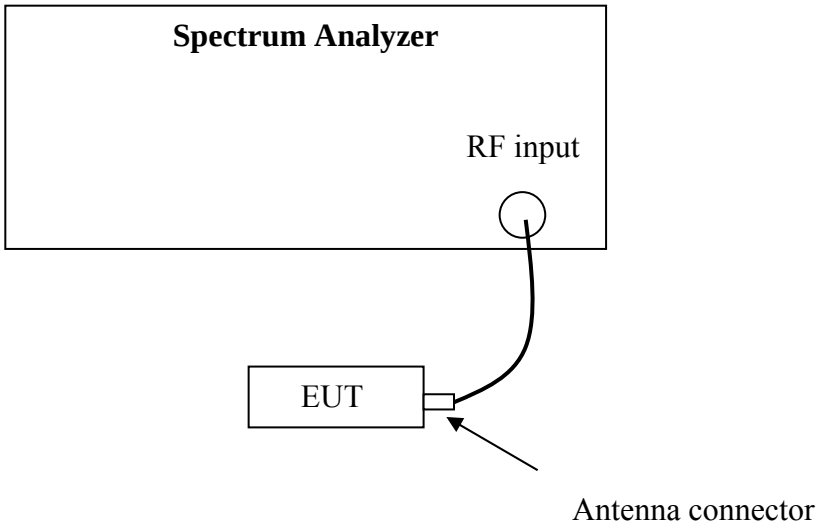
8. 26 dB Bandwidth & Emission Bandwidth (99%)

Test Status: Tested

8.1 Test limit

None

8.2 Test Configuration



8.3 Test procedure and test setup

The bandwidth was measured from the antenna port of the EUT according to the measurement method refer to KDB 789033D02 v01: section C.

Emission Bandwidth (EBW)

a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) 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%.

99 Percent Occupied Bandwidth

The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

8.4 Test protocol

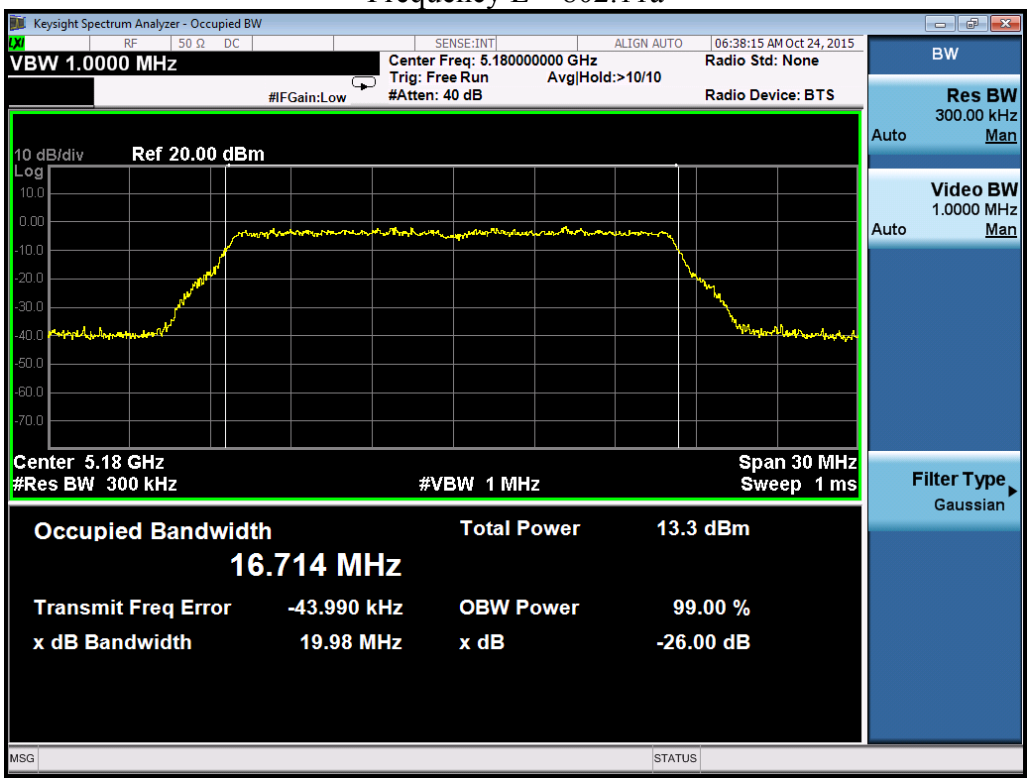
Temperature : 25 °C
Relative Humidity : 55 %

U-NII-1 Band:

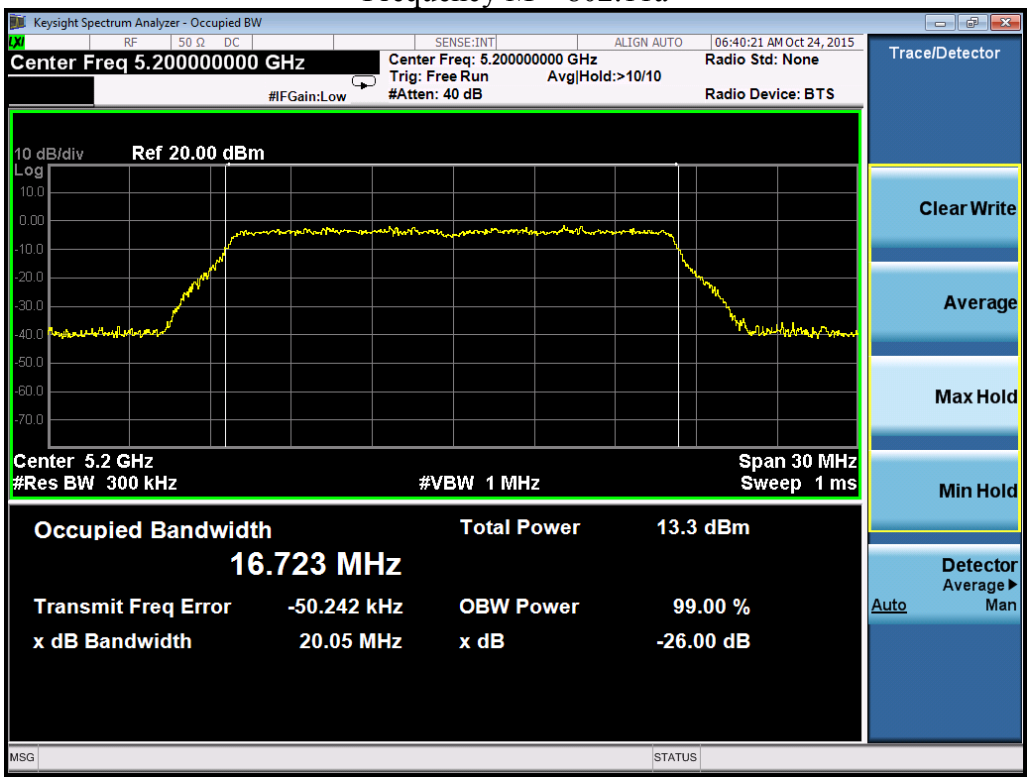
Mode	Frequency (MHz)	26 dB BW (MHz)		99% dB BW (MHz)	
		Port 0	Port 1	Port 0	Port 1
802.11a	5180	19.98	20.03	16.714	16.724
	5200	20.05	20.12	16.723	16.719
	5240	20.04	19.99	16.676	16.657
802.11n20	5180	20.33	20.55	17.850	17.872
	5200	20.49	20.41	17.854	17.844
	5240	20.44	20.37	17.847	17.854
802.11n40	5190	41.99	42.04	36.957	36.937
	5230	41.75	41.57	36.724	36.691

Test Plots as bellow:

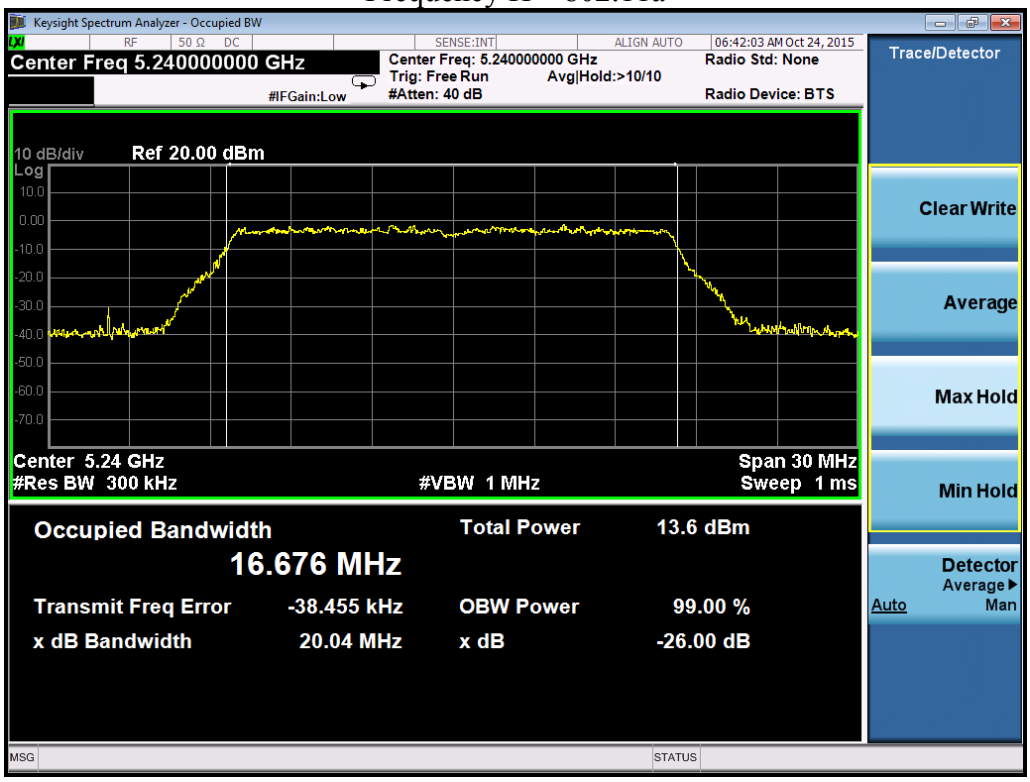
Port 1
Frequency L – 802.11a



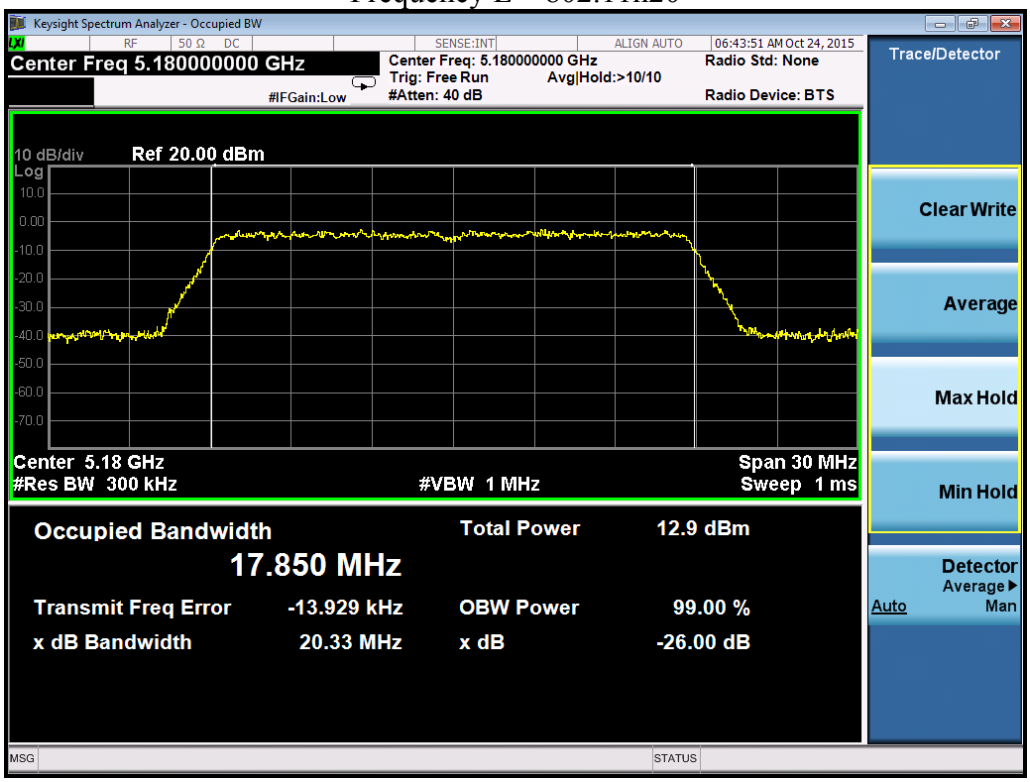
Frequency M – 802.11a



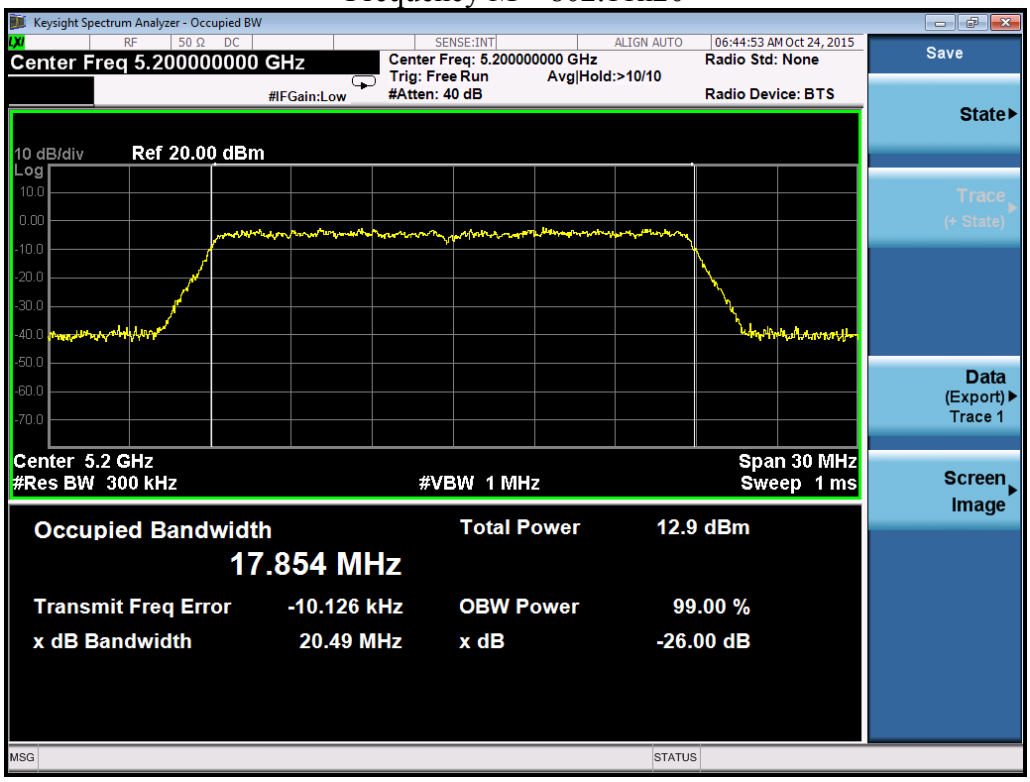
Frequency H – 802.11a



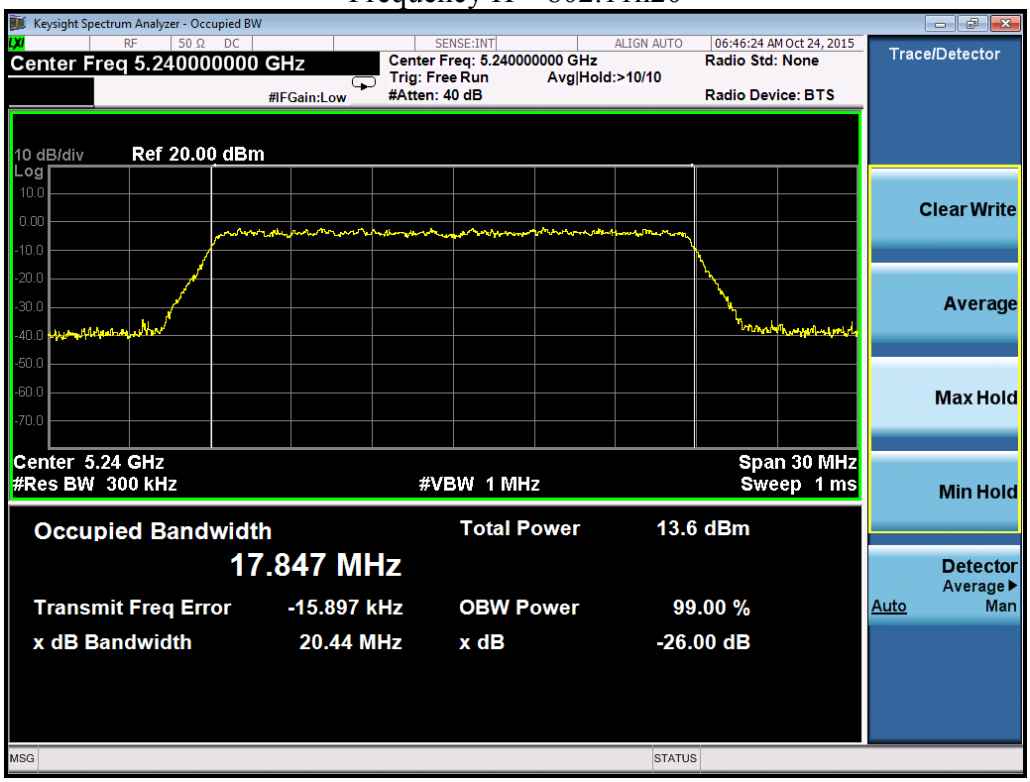
Frequency L – 802.11n20



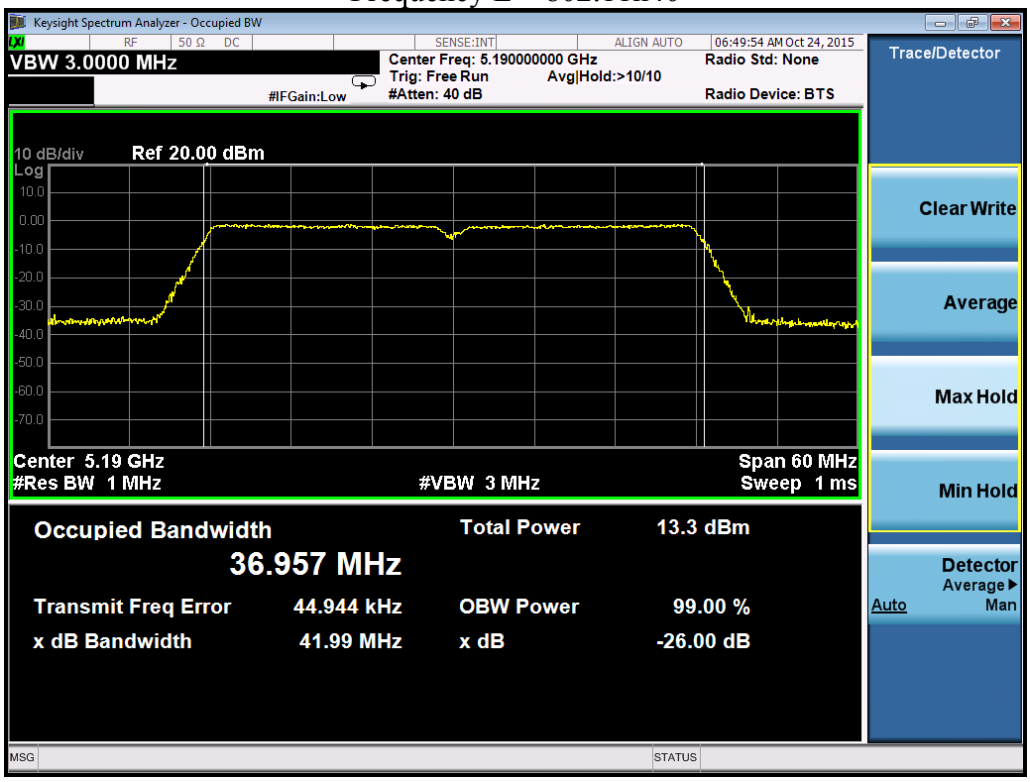
Frequency M – 802.11n20



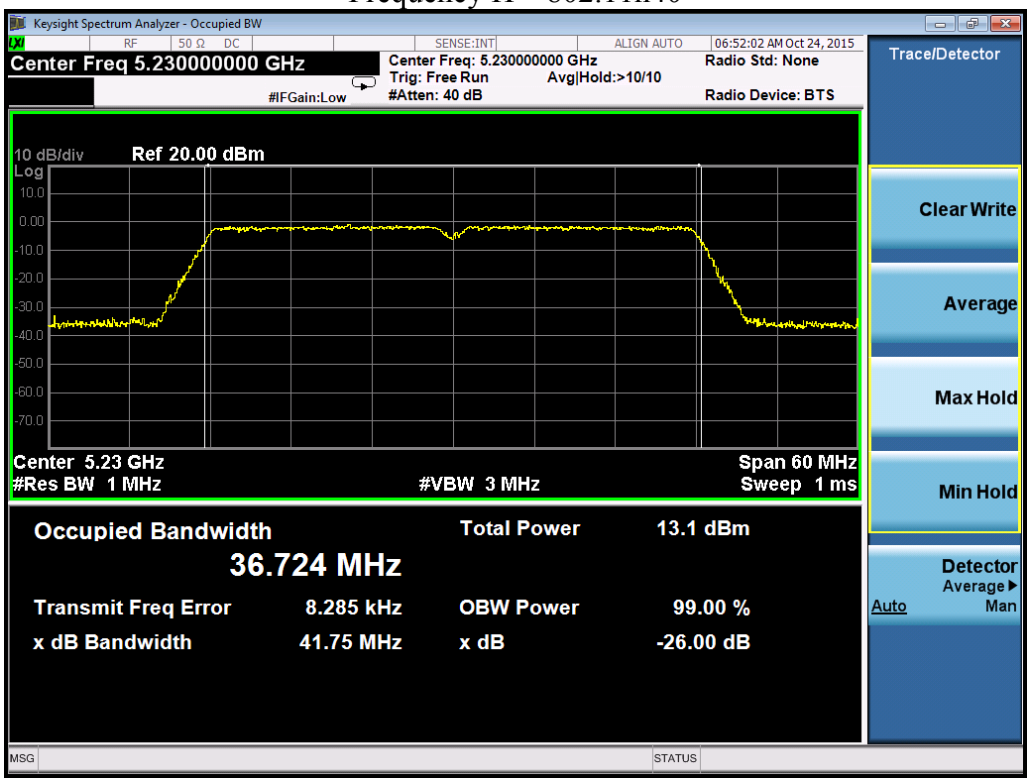
Frequency H – 802.11n20



Frequency L – 802.11n40

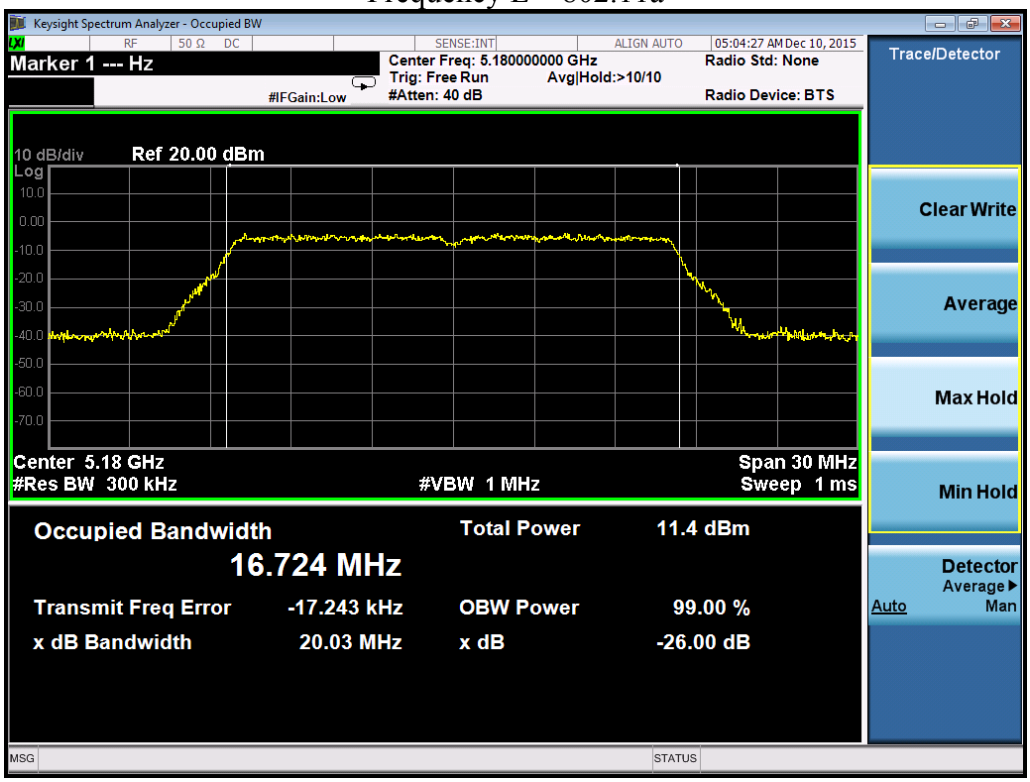


Frequency H – 802.11n40

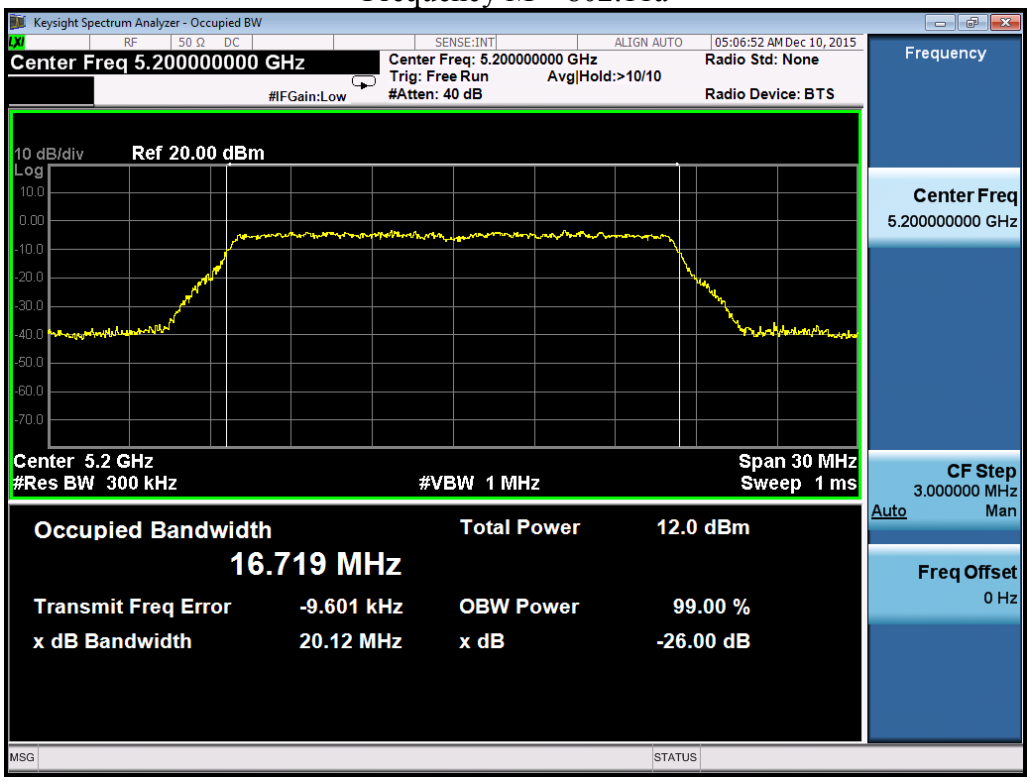


Port 2

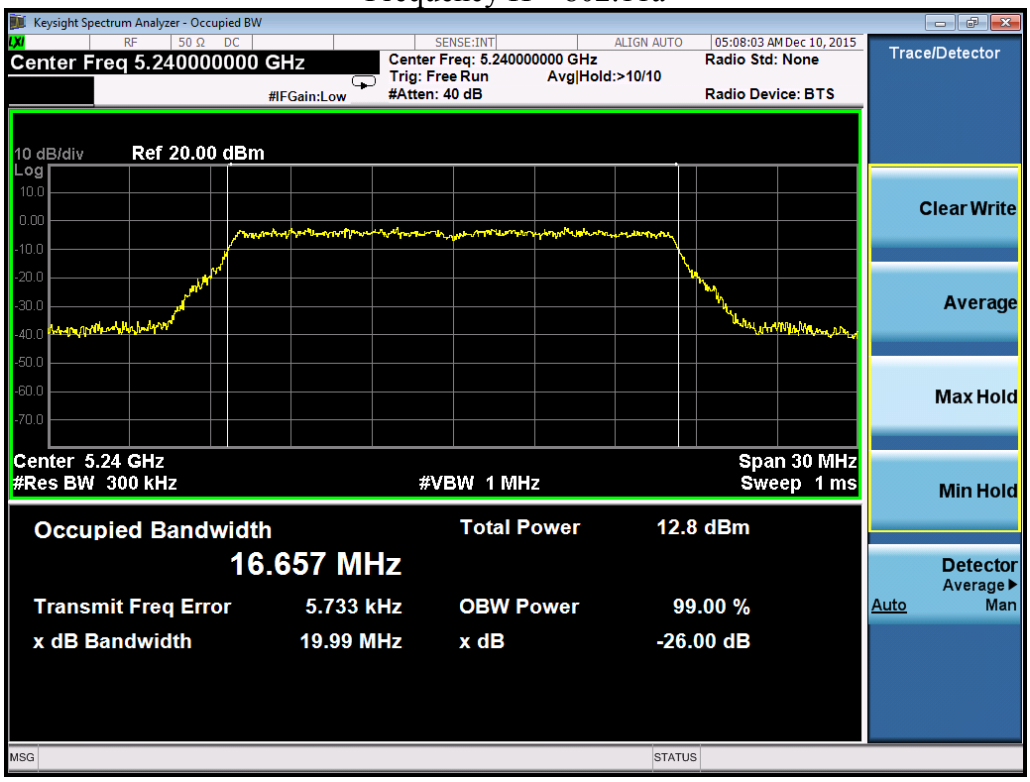
Frequency L – 802.11a



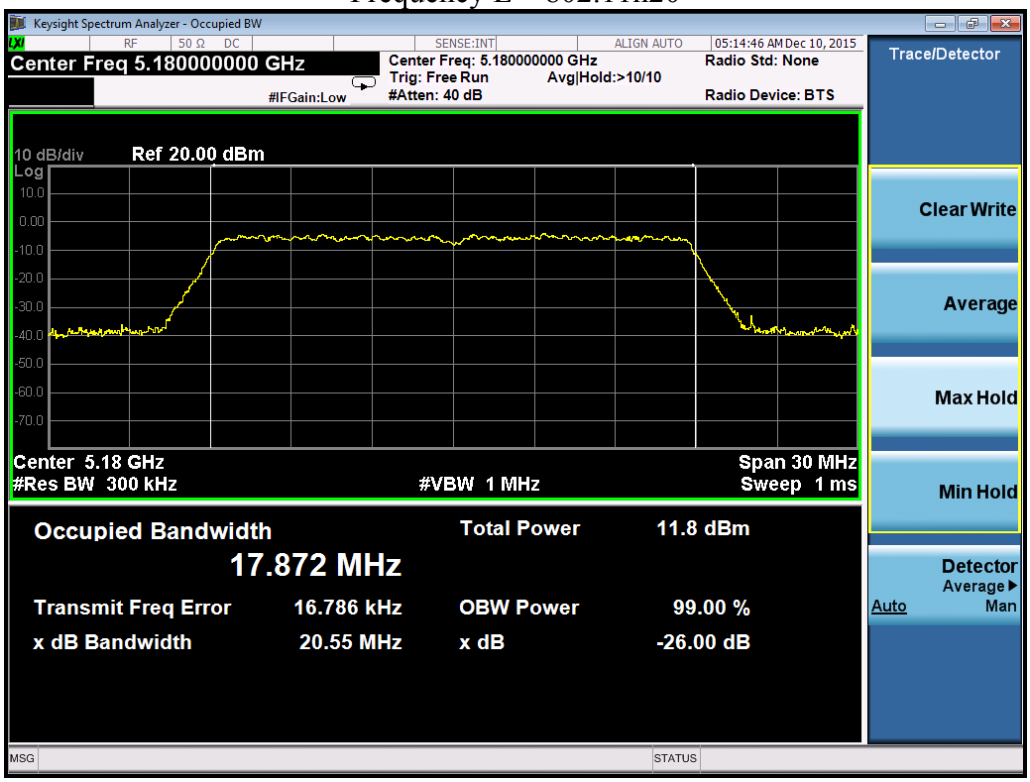
Frequency M – 802.11a



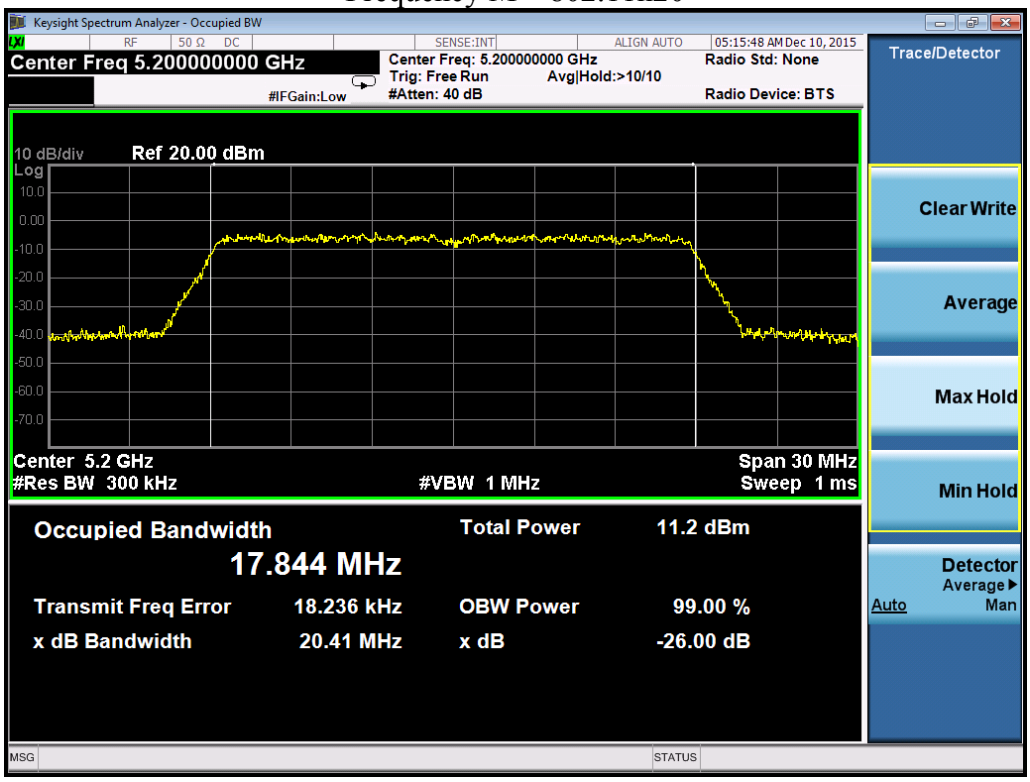
Frequency H – 802.11a



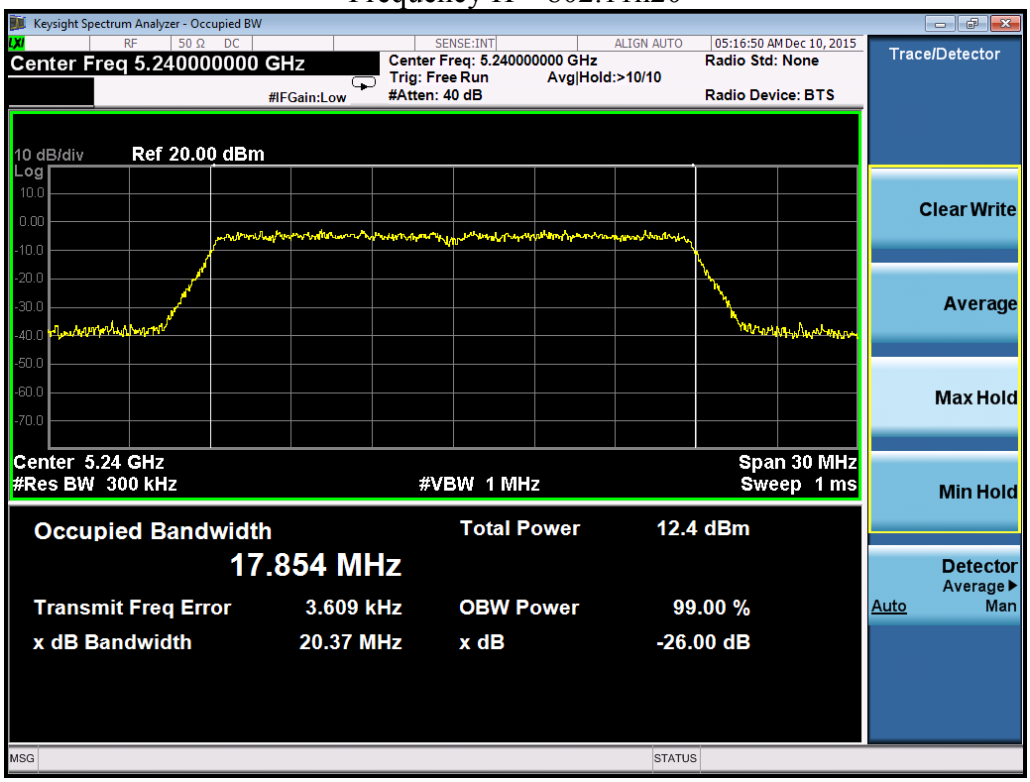
Frequency L – 802.11n20



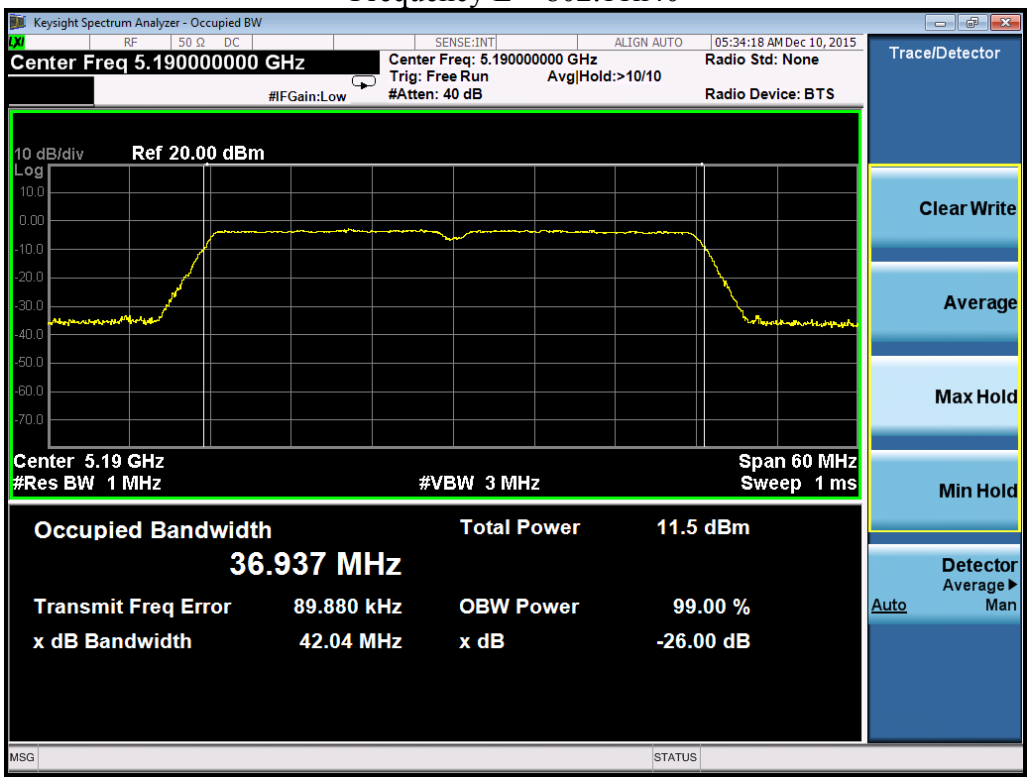
Frequency M – 802.11n20



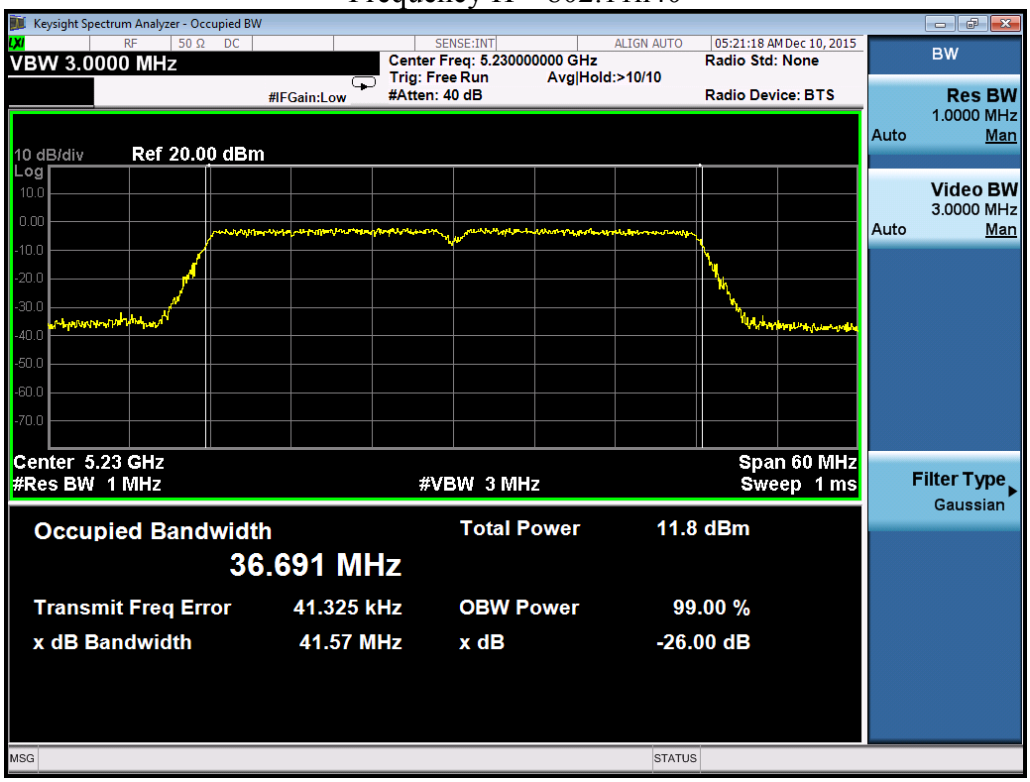
Frequency H – 802.11n20



Frequency L – 802.11n40



Frequency H – 802.11n40



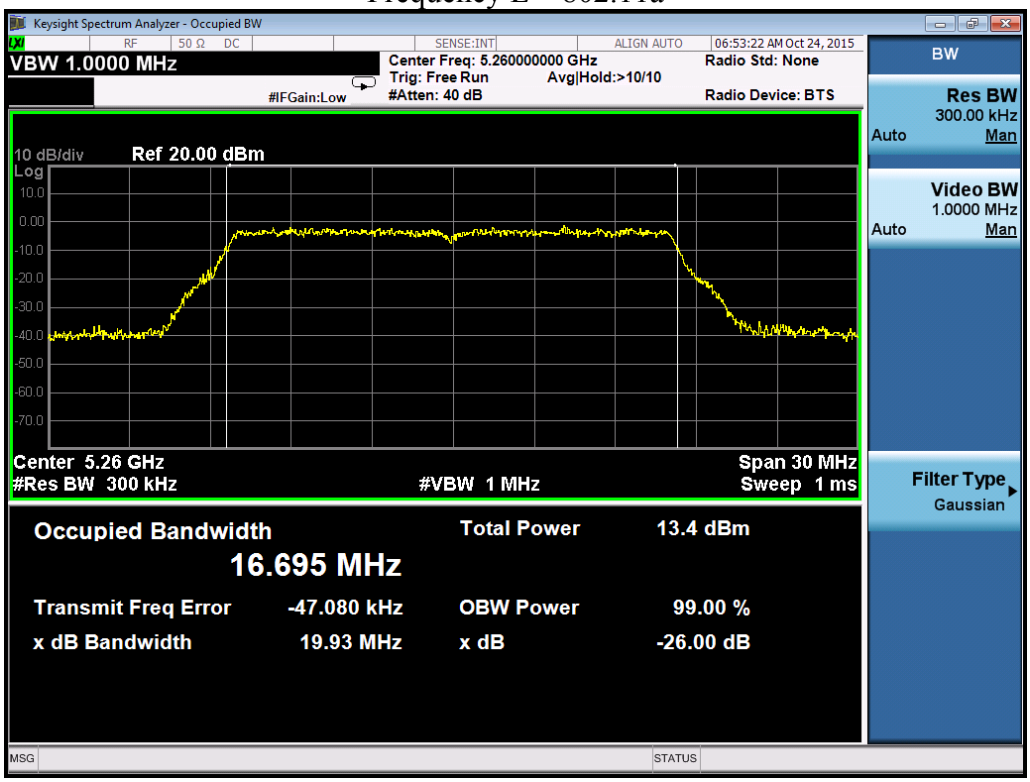
U-NII-2A Band:

Mode	Frequency (MHz)	26 dB BW (MHz)		99% dB BW (MHz)	
		Port 0	Port 1	Port 0	Port 1
802.11a	5260	19.93	20.10	16.695	16.709
	5300	20.14	19.98	16.718	16.689
	5320	19.97	20.00	16.714	16.651
802.11n20	5260	20.47	20.50	17.858	17.847
	5300	20.50	20.46	17.855	17.867
	5320	20.51	20.62	17.845	17.871
802.11n40	5270	41.76	41.77	36.931	36.815
	5310	41.61	41.70	36.801	36.773

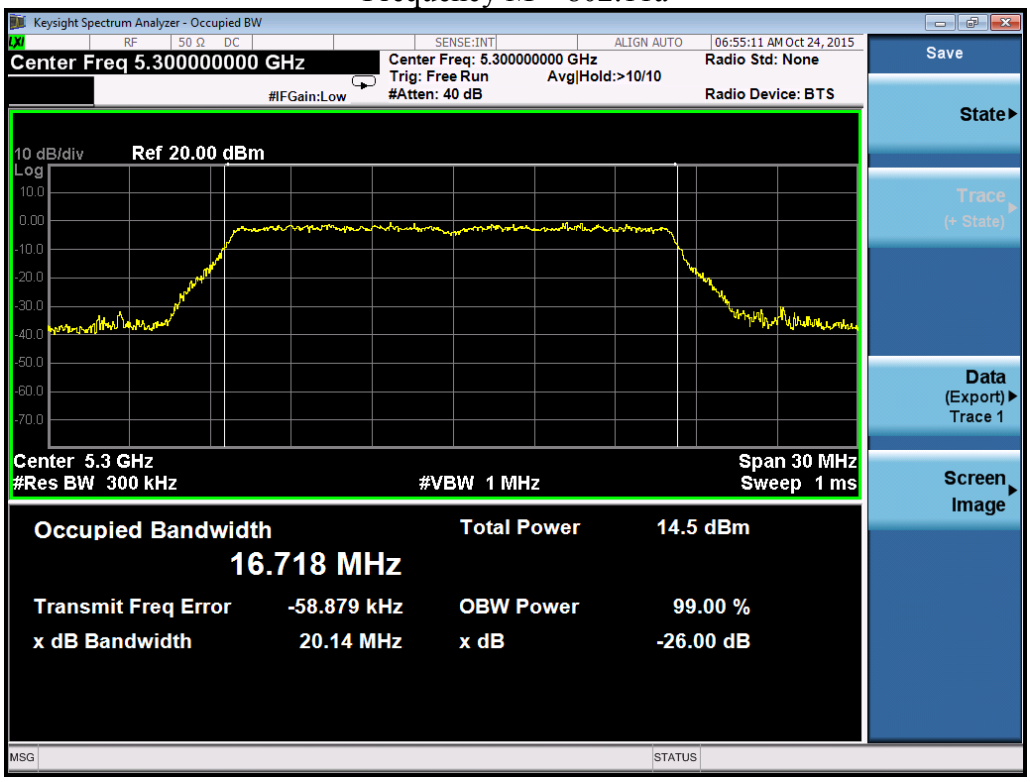
Test Plots as bellow:

Port 1

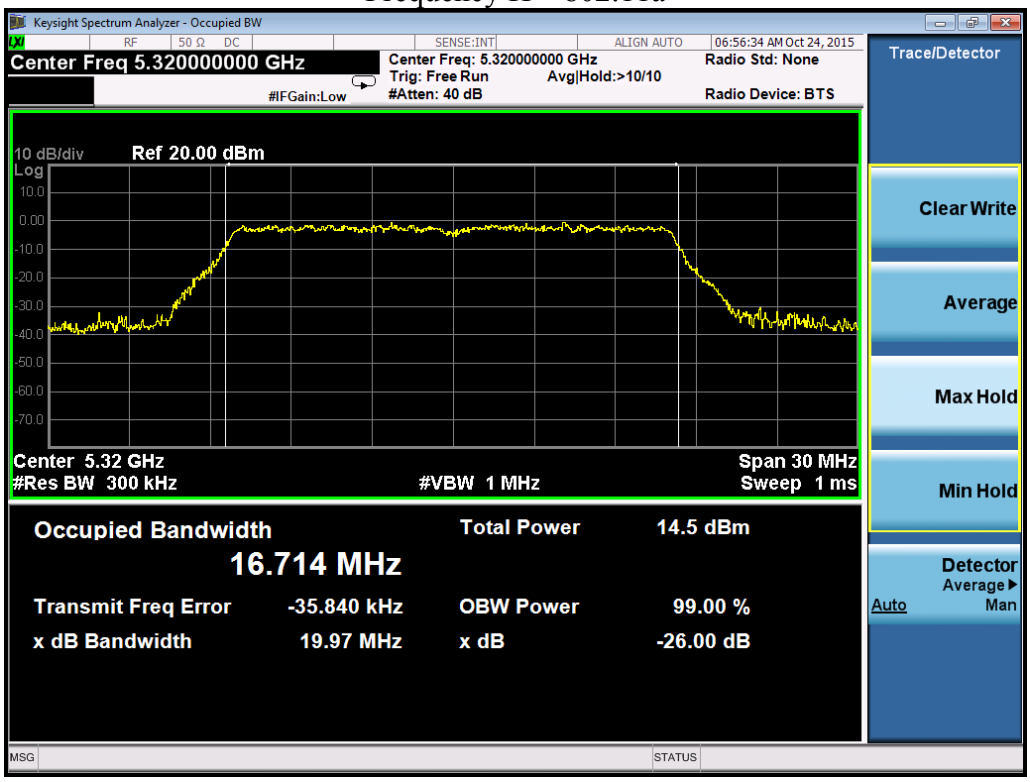
Frequency L – 802.11a



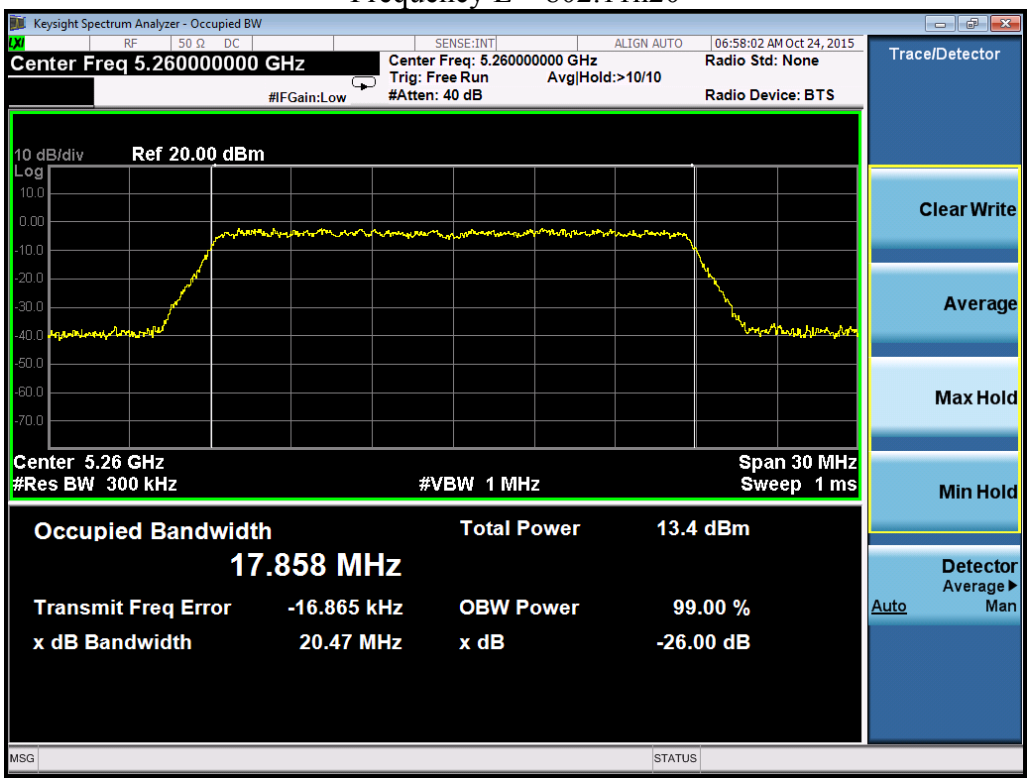
Frequency M – 802.11a



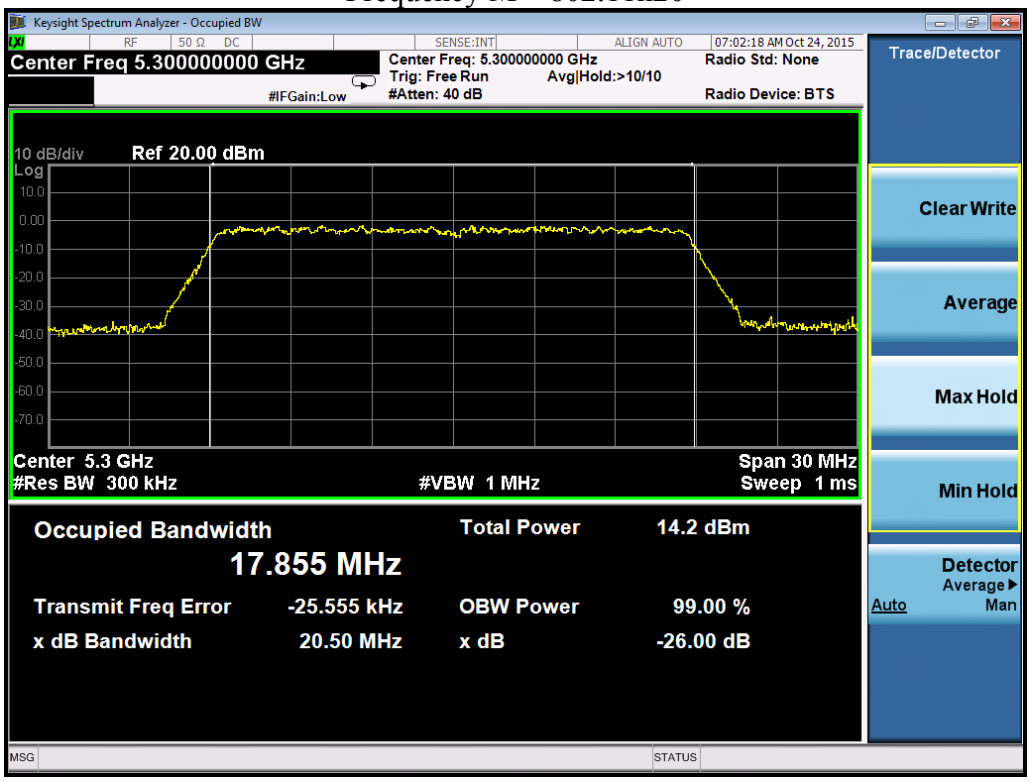
Frequency H – 802.11a



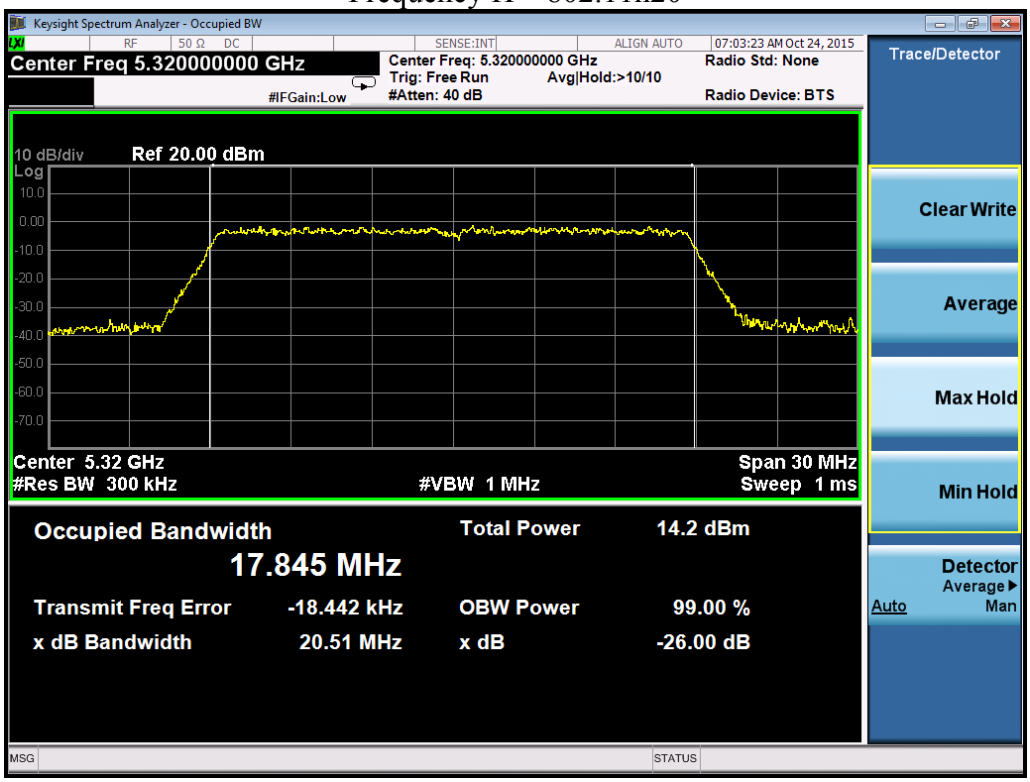
Frequency L – 802.11n20



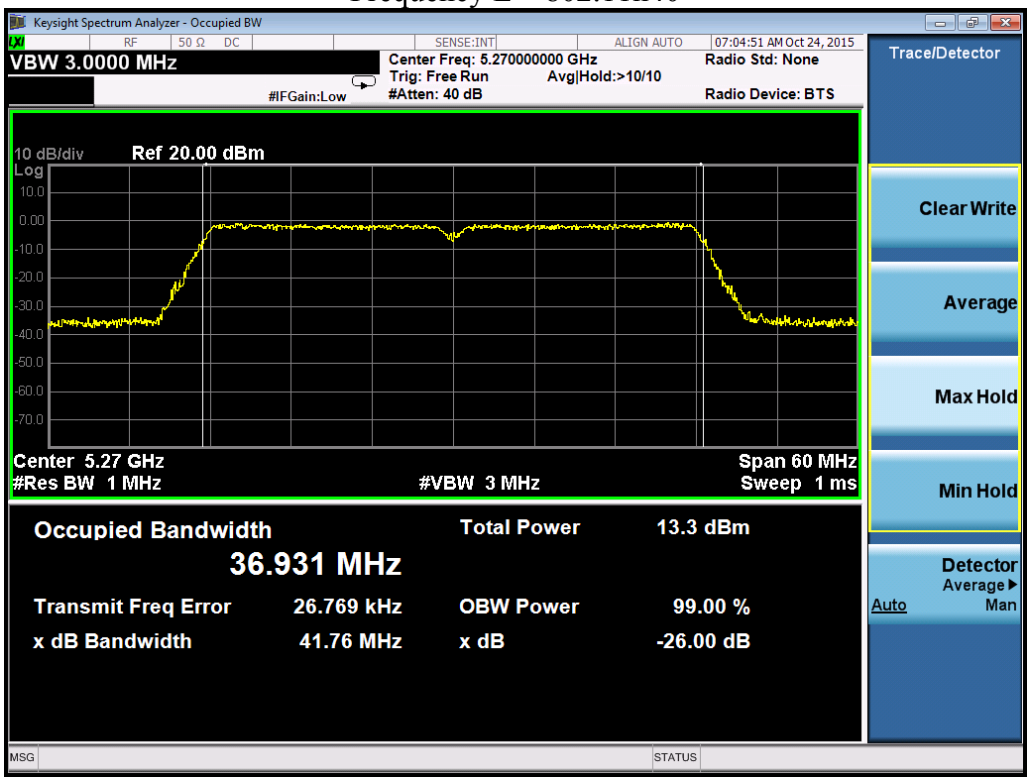
Frequency M – 802.11n20



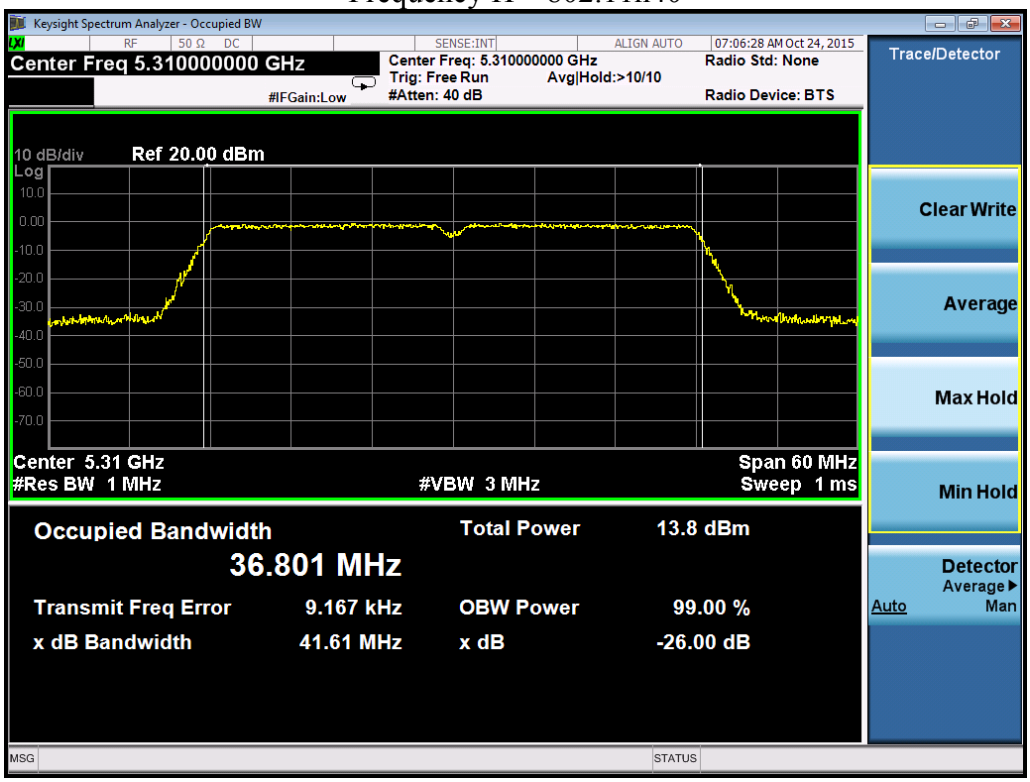
Frequency H – 802.11n20



Frequency L – 802.11n40

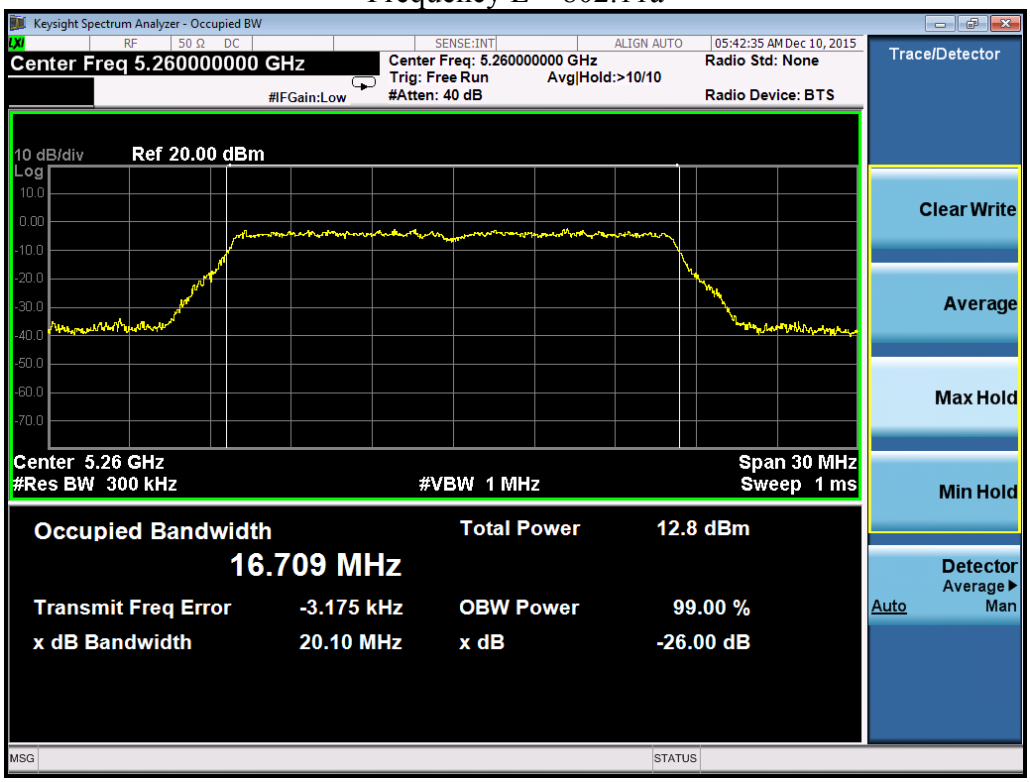


Frequency H – 802.11n40

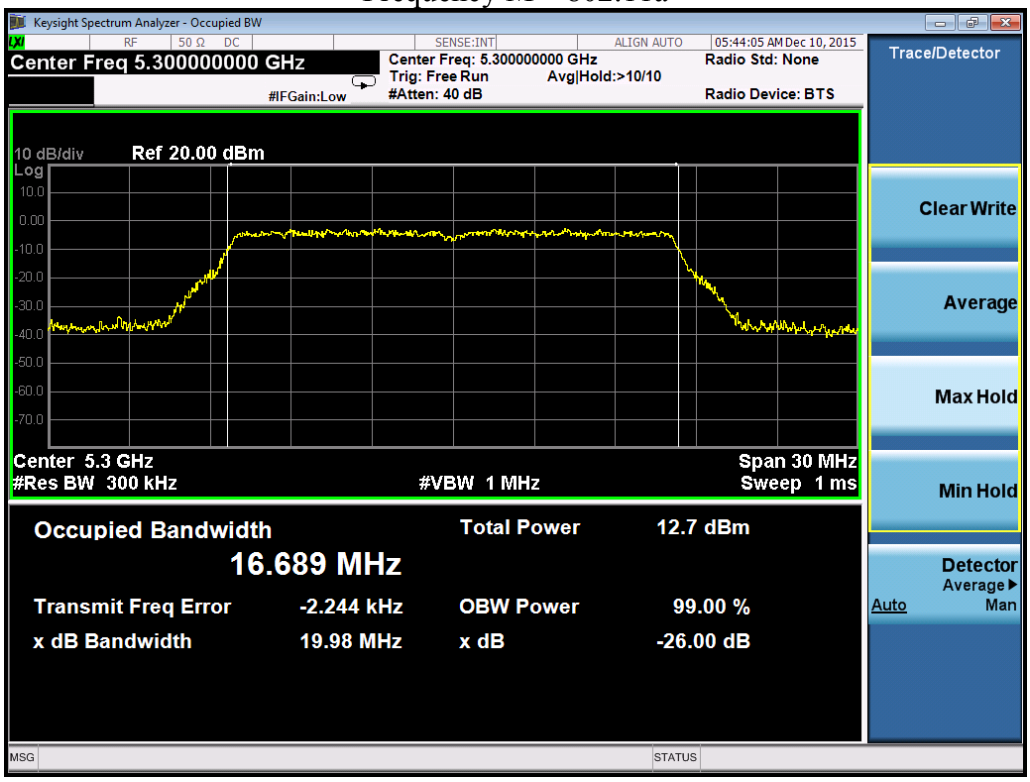


Port 2

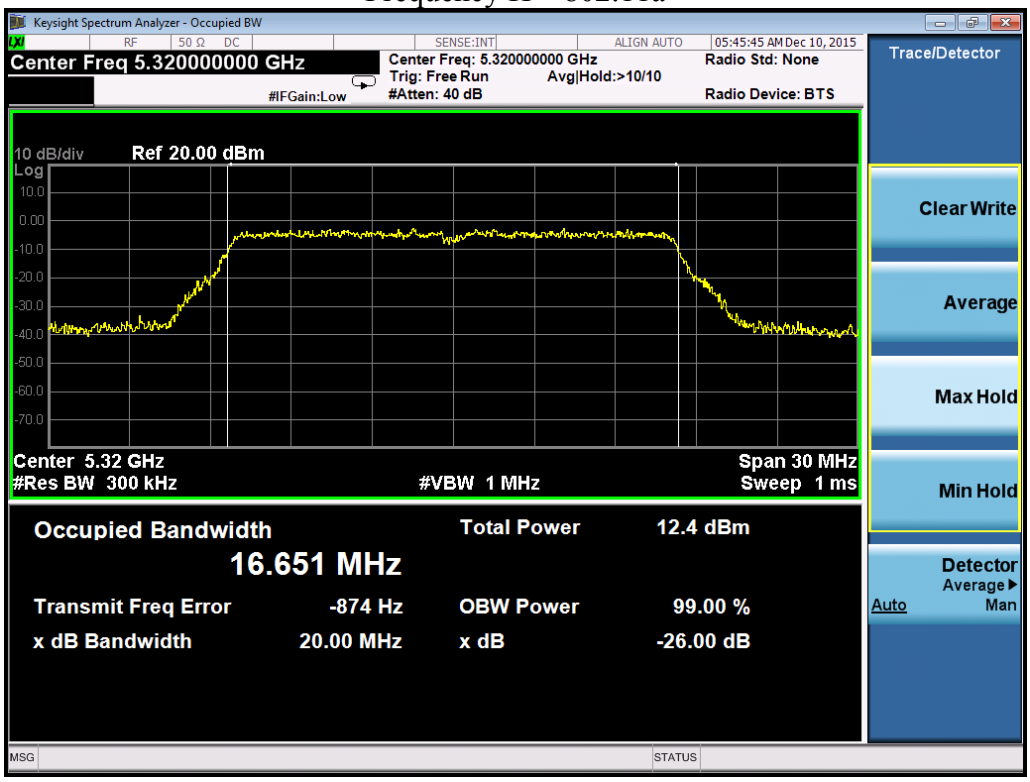
Frequency L – 802.11a



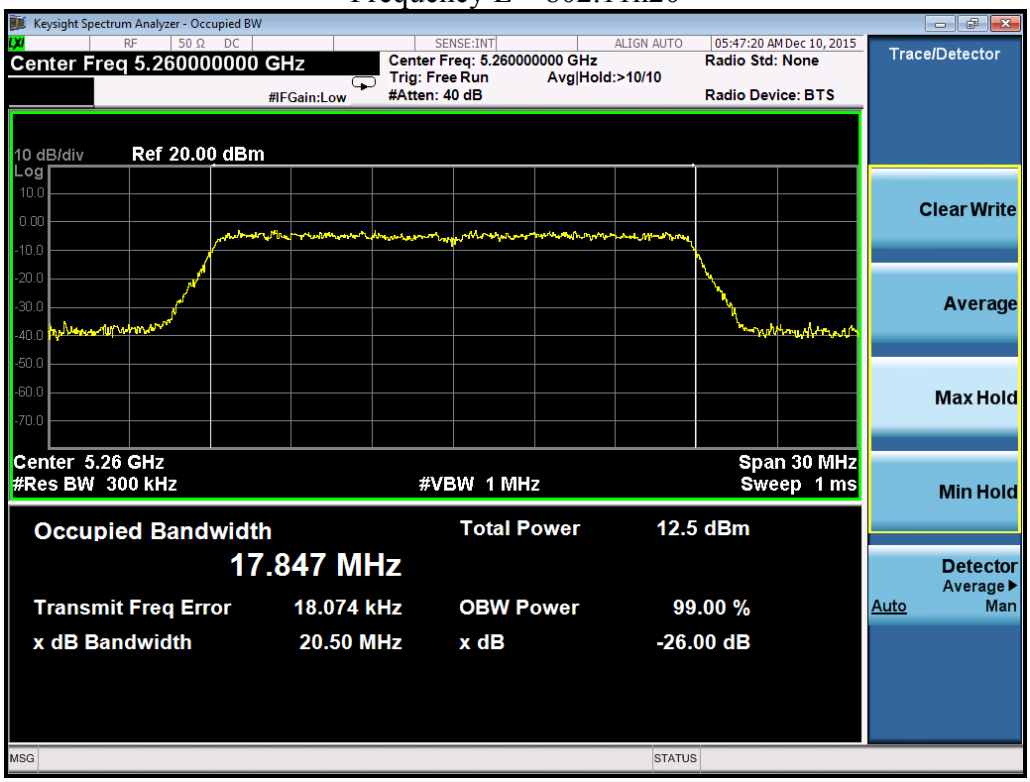
Frequency M – 802.11a



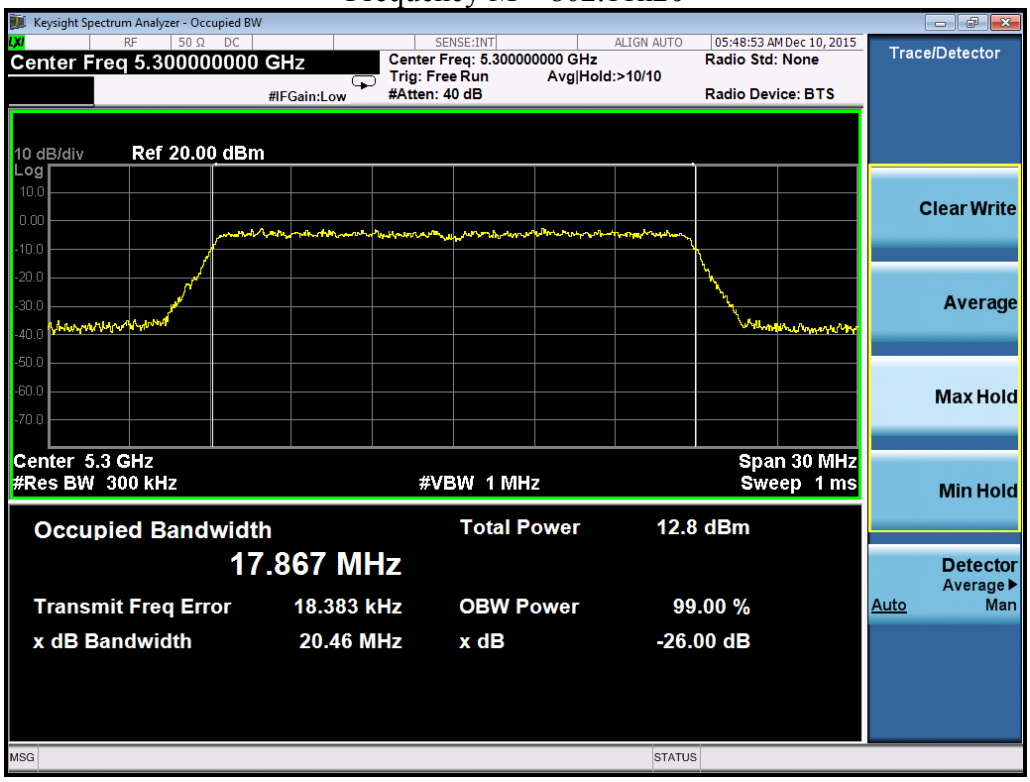
Frequency H – 802.11a



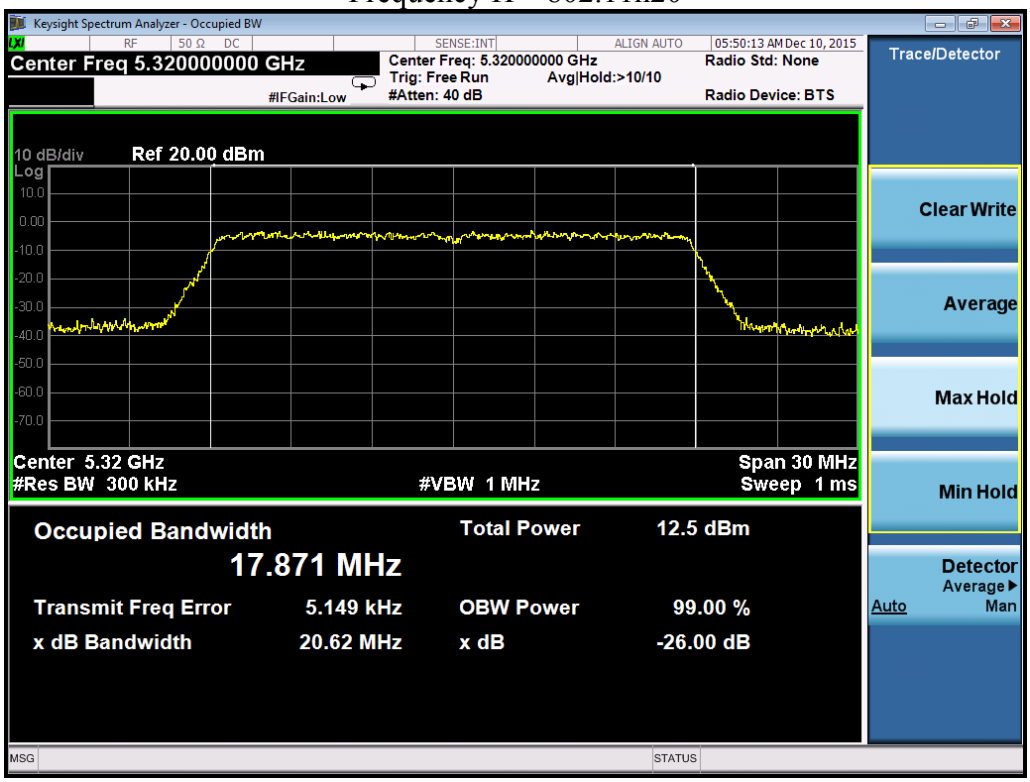
Frequency L – 802.11n20



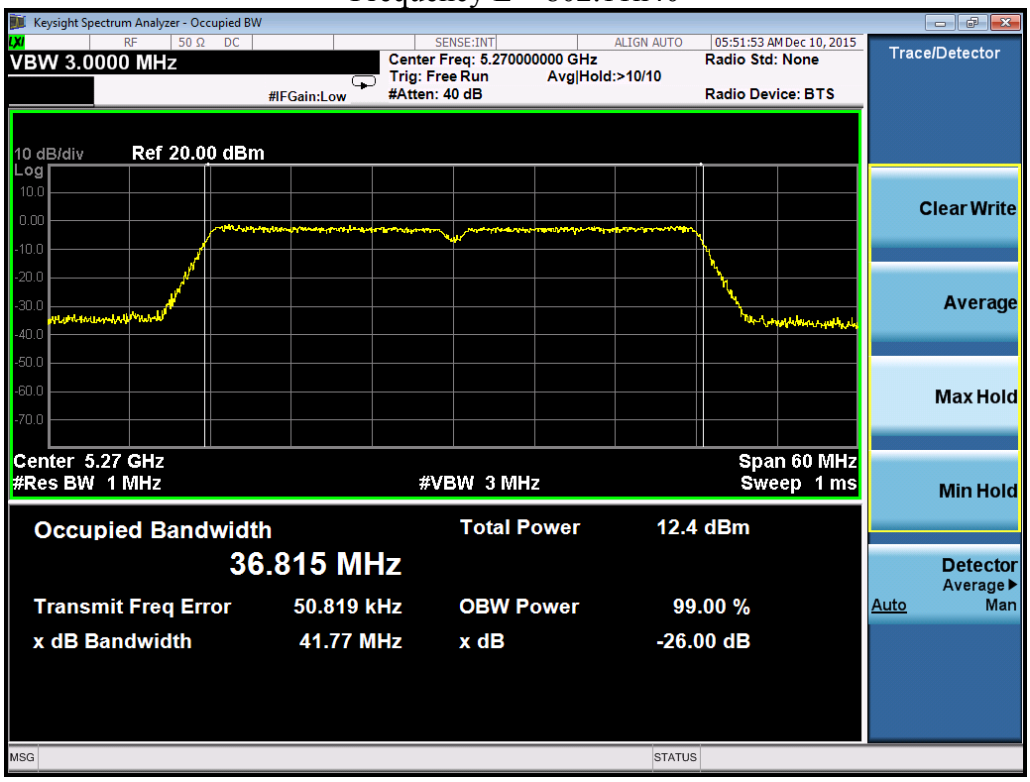
Frequency M – 802.11n20



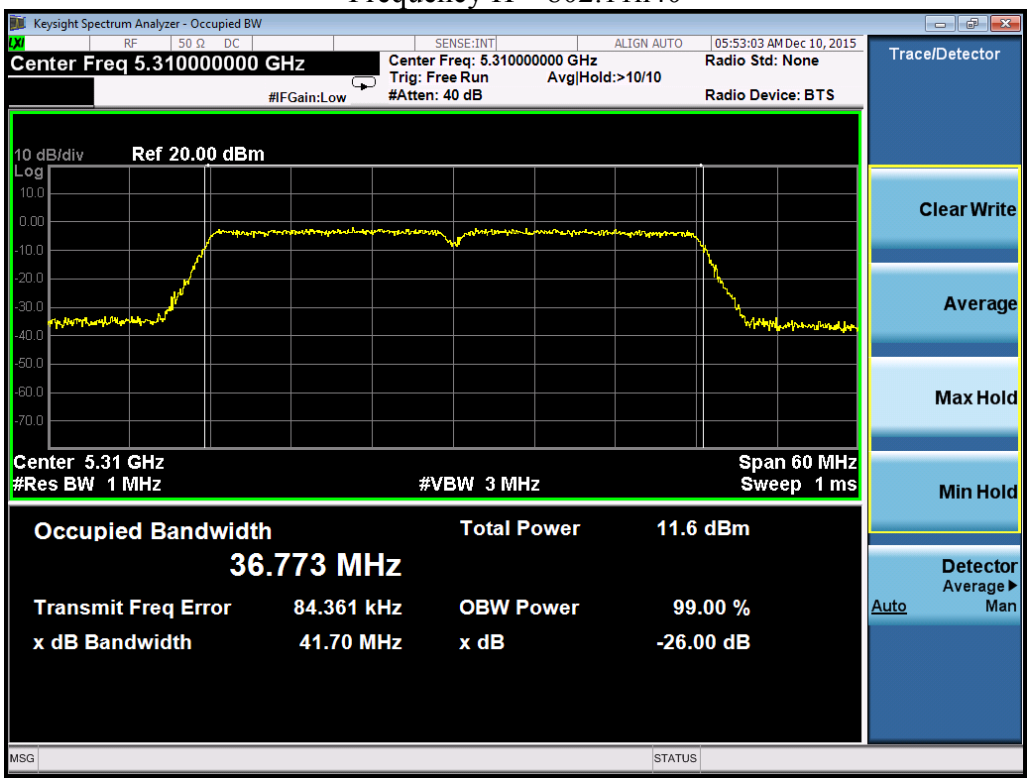
Frequency H – 802.11n20



Frequency L – 802.11n40



Frequency H – 802.11n40



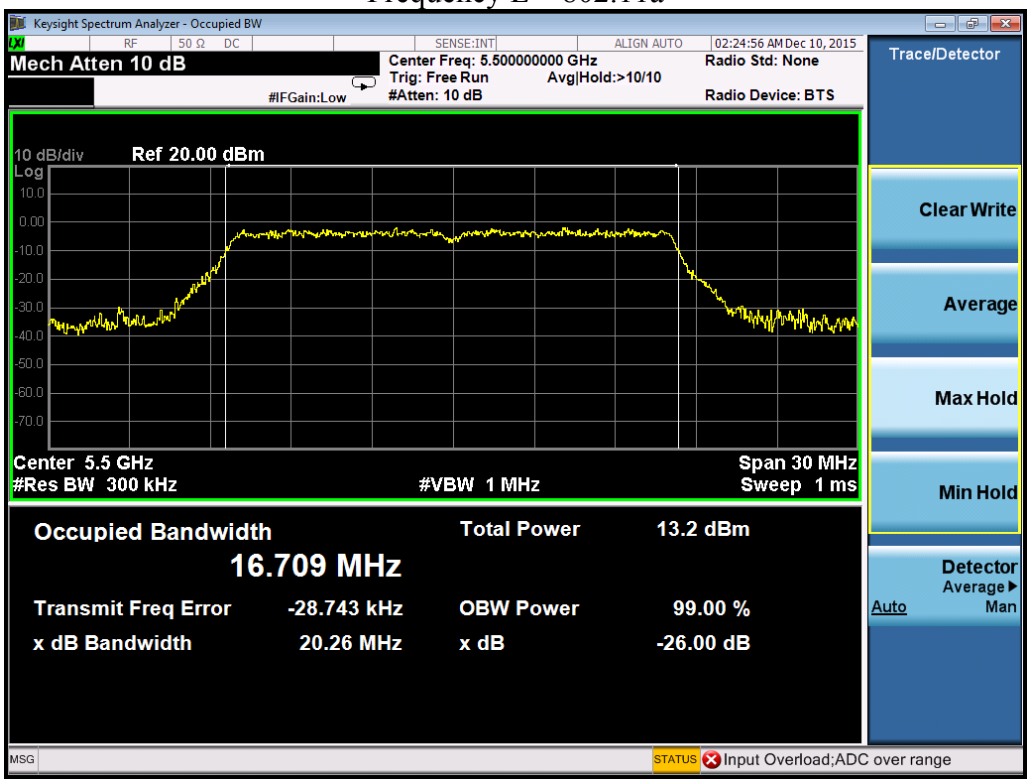
U-NII-2C Band:

Mode	Frequency (MHz)	26 dB BW (MHz)		99% dB BW (MHz)	
		Port 0	Port 1	Port 0	Port 1
802.11a	5500	20.26	22.04	16.709	16.691
	5580	19.97	20.30	16.752	16.743
	5700	20.20	20.05	16.714	16.721
802.11n20	5500	20.46	20.48	17.884	17.874
	5580	20.47	20.50	17.904	17.880
	5700	20.37	20.45	17.873	17.861
802.11n40	5510	42.43	41.67	37.275	36.863
	5550	41.69	41.92	36.907	36.989
	5670	42.45	41.67	37.093	36.644

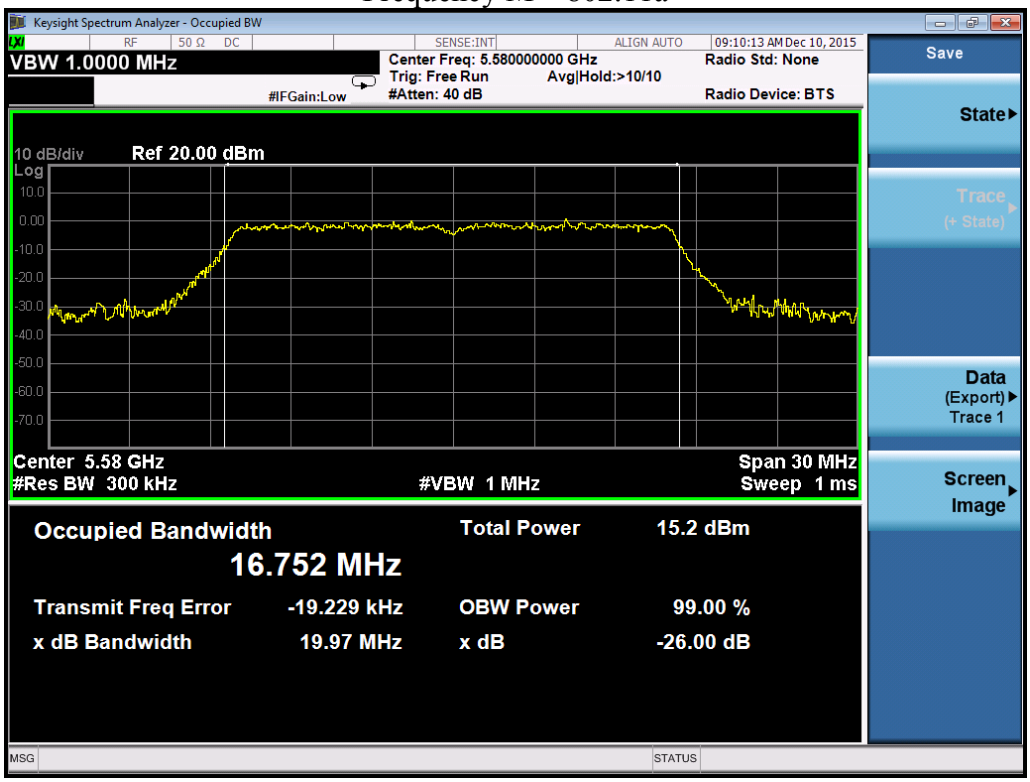
Test Plots as bellow:

Port 1

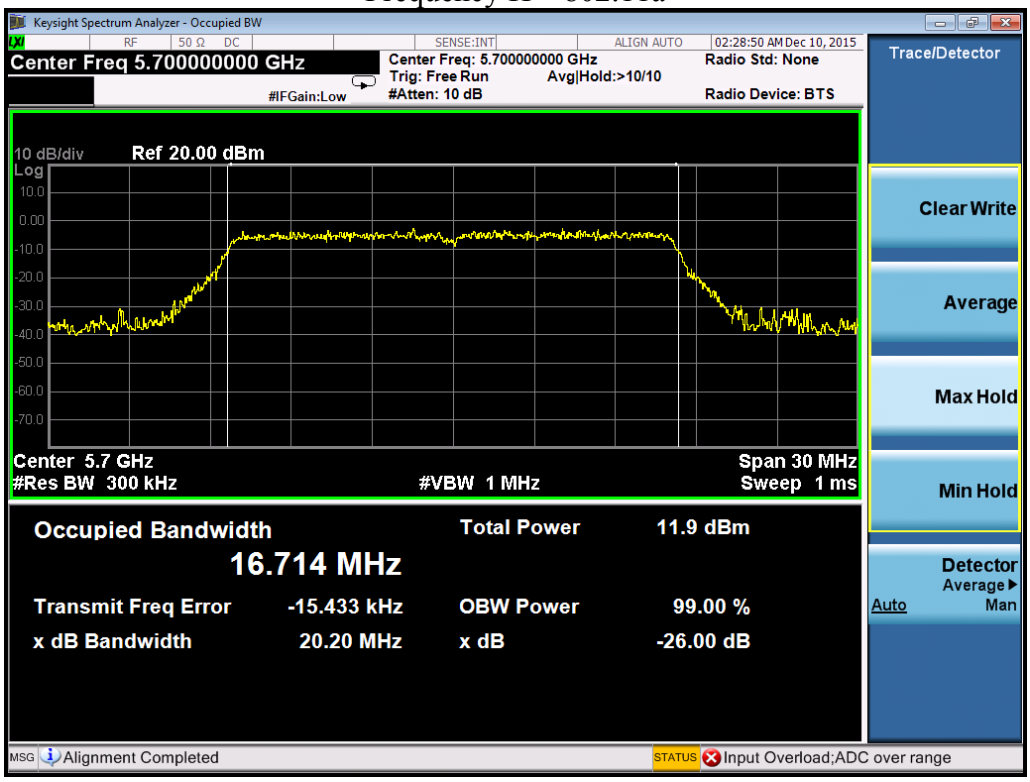
Frequency L – 802.11a



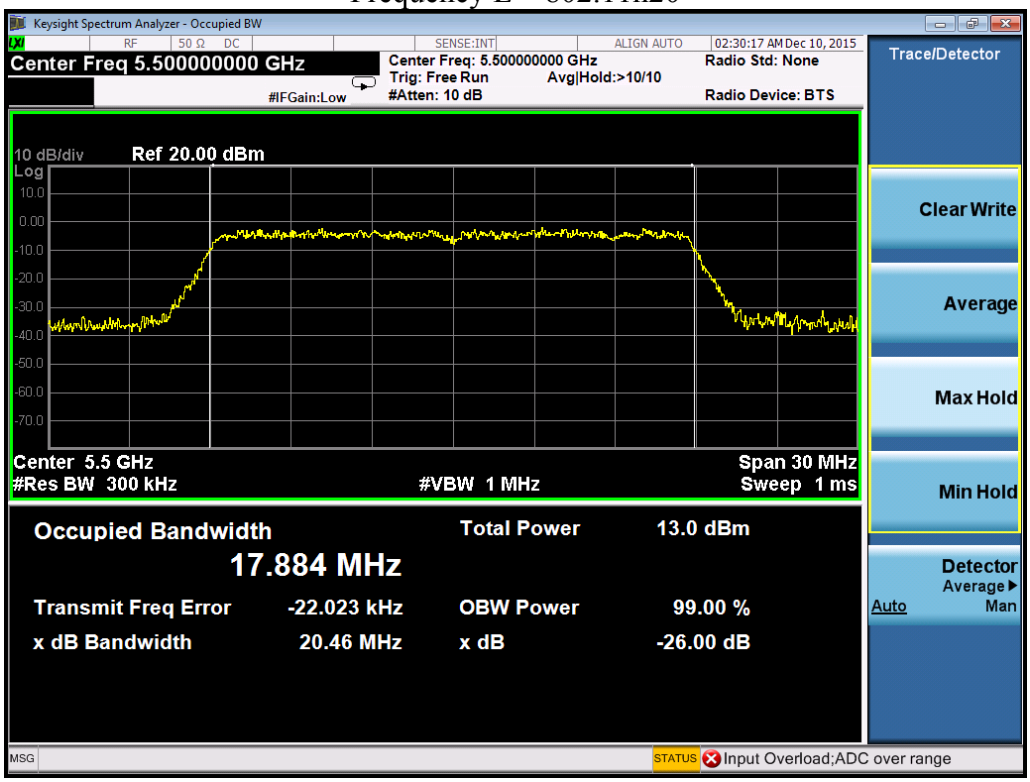
Frequency M – 802.11a



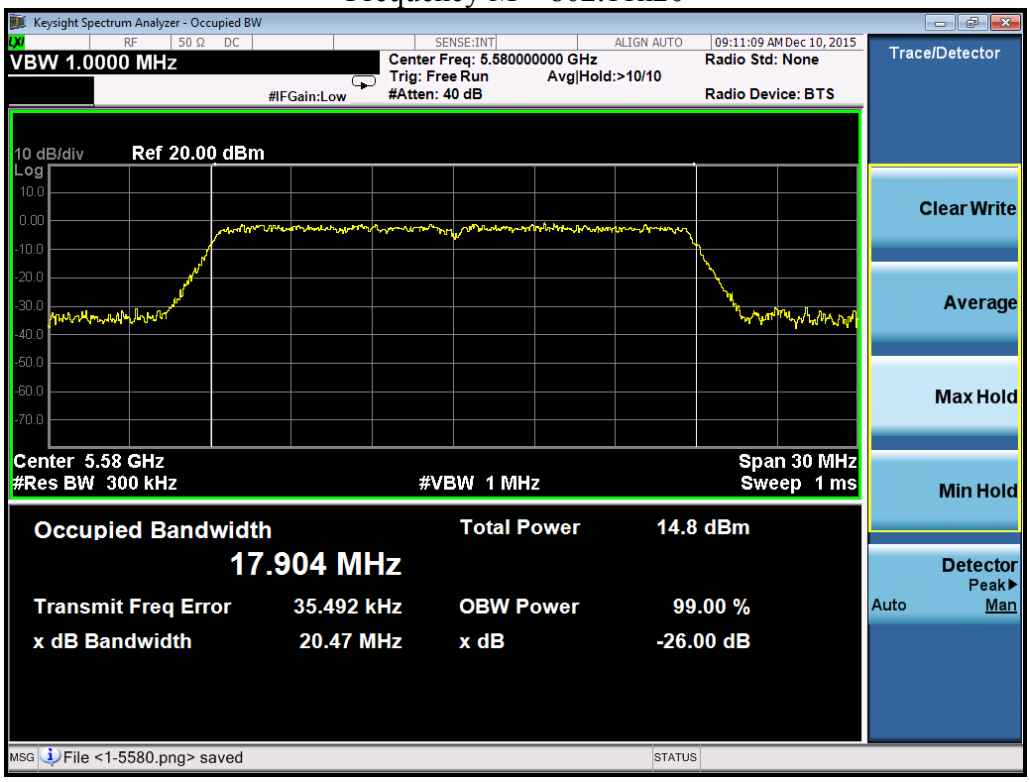
Frequency H – 802.11a



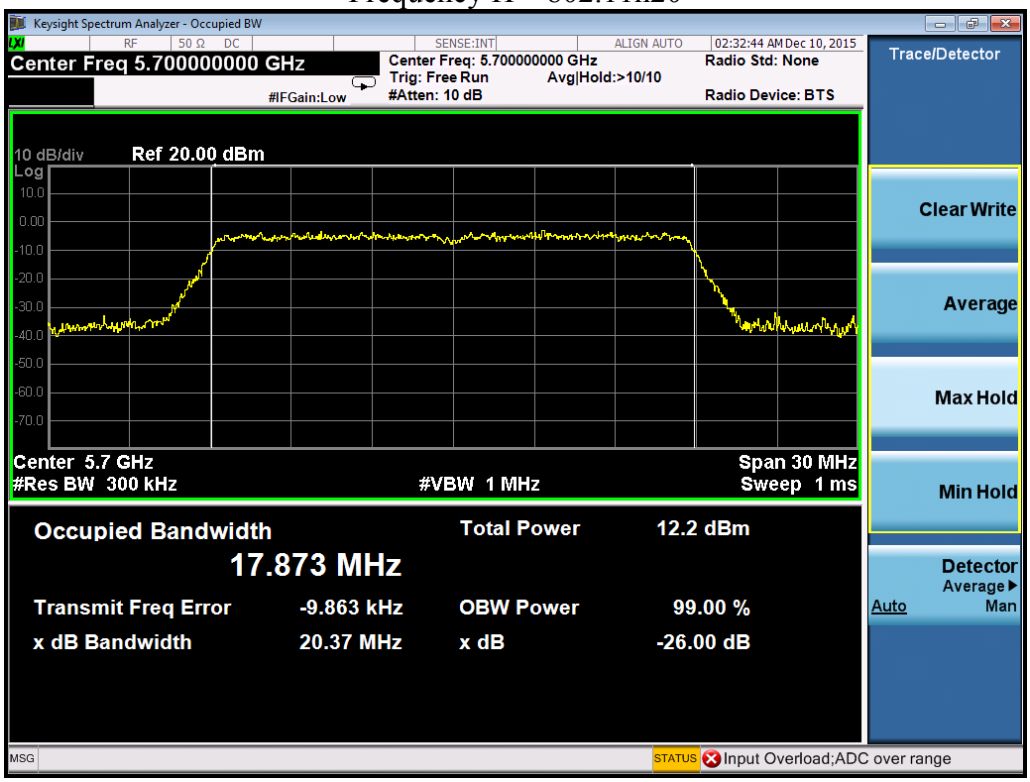
Frequency L – 802.11n20



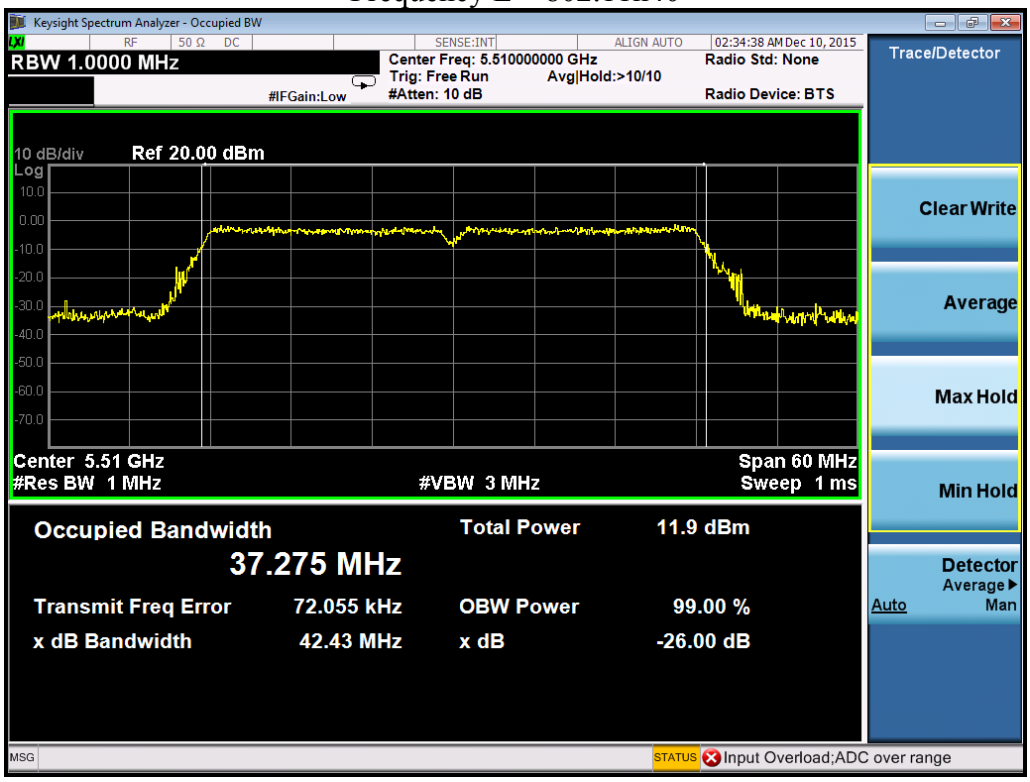
Frequency M – 802.11n20



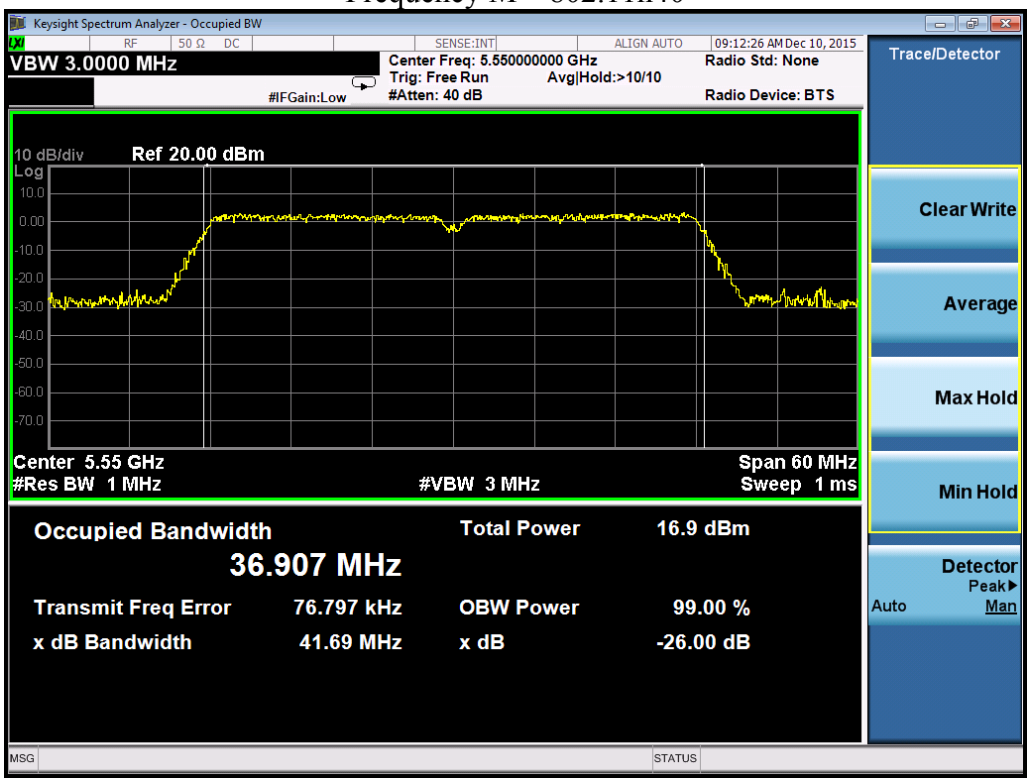
Frequency H – 802.11n20



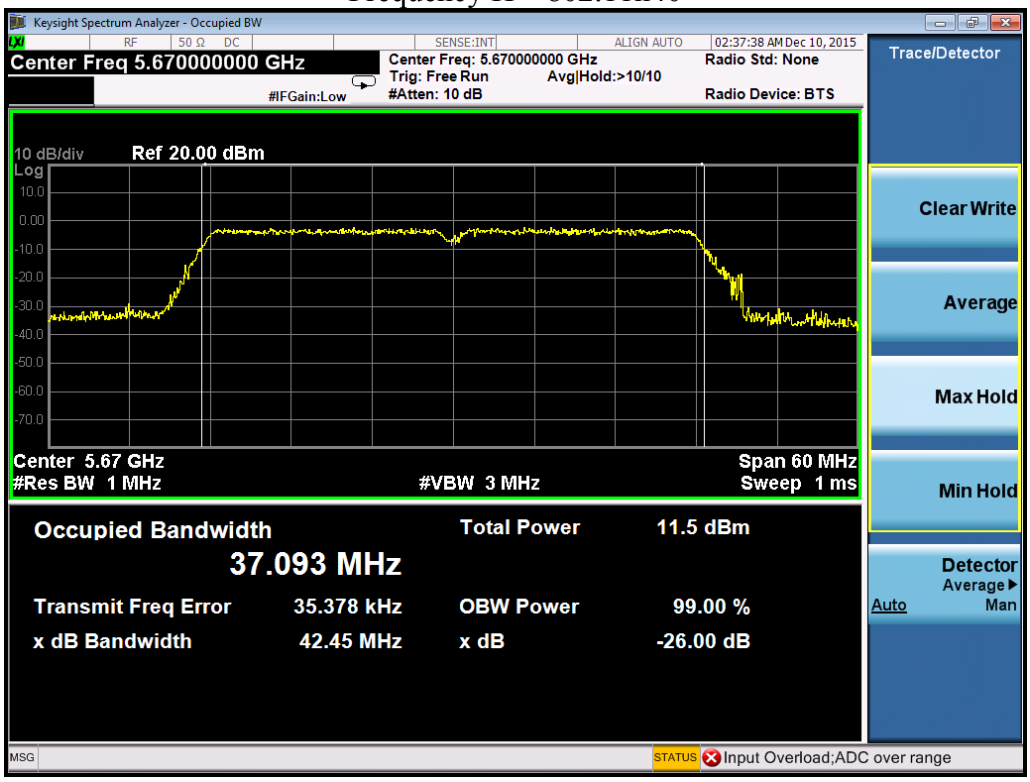
Frequency L – 802.11n40



Frequency M – 802.11n40

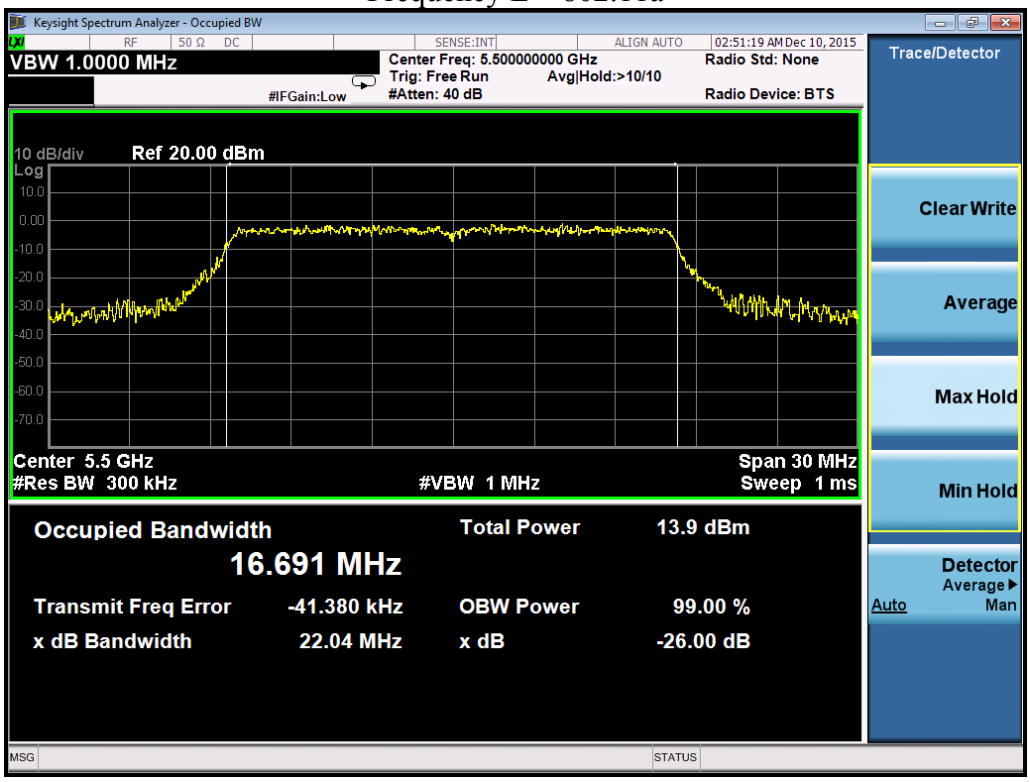


Frequency H – 802.11n40



Port 2

Frequency L – 802.11a



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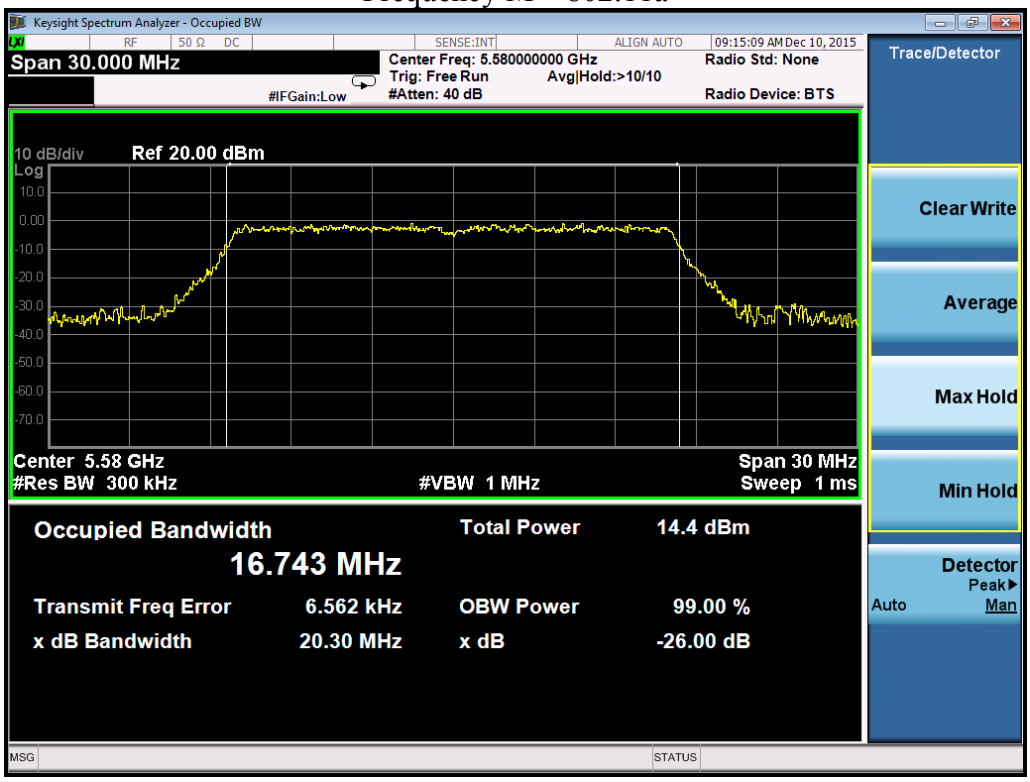

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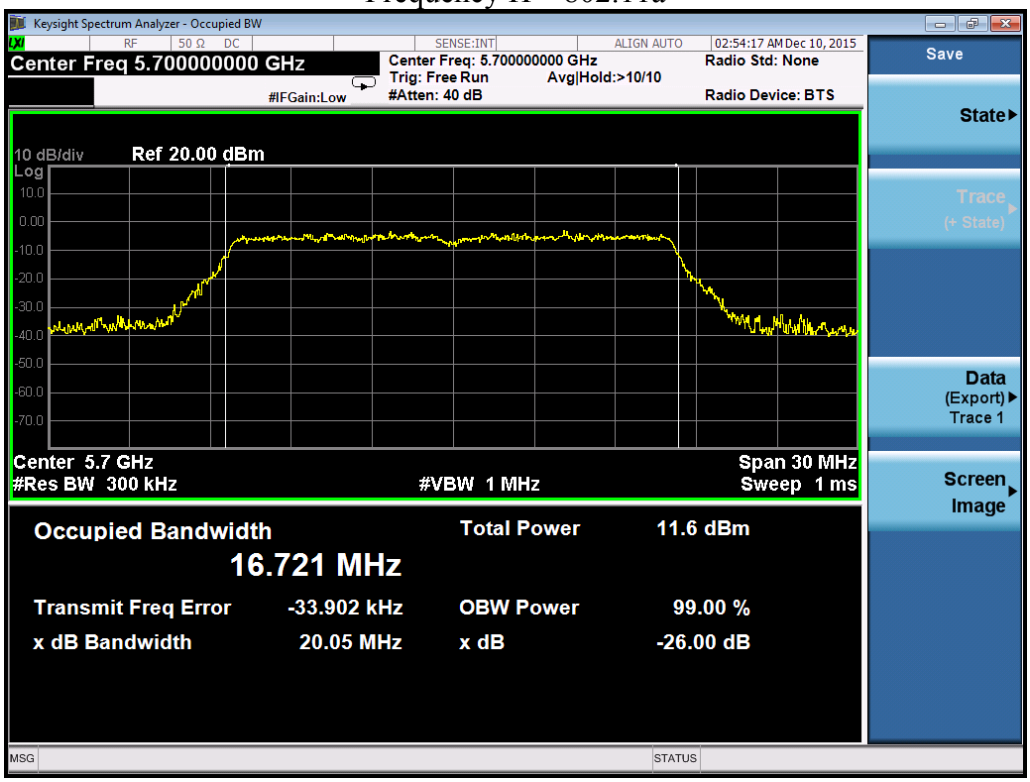
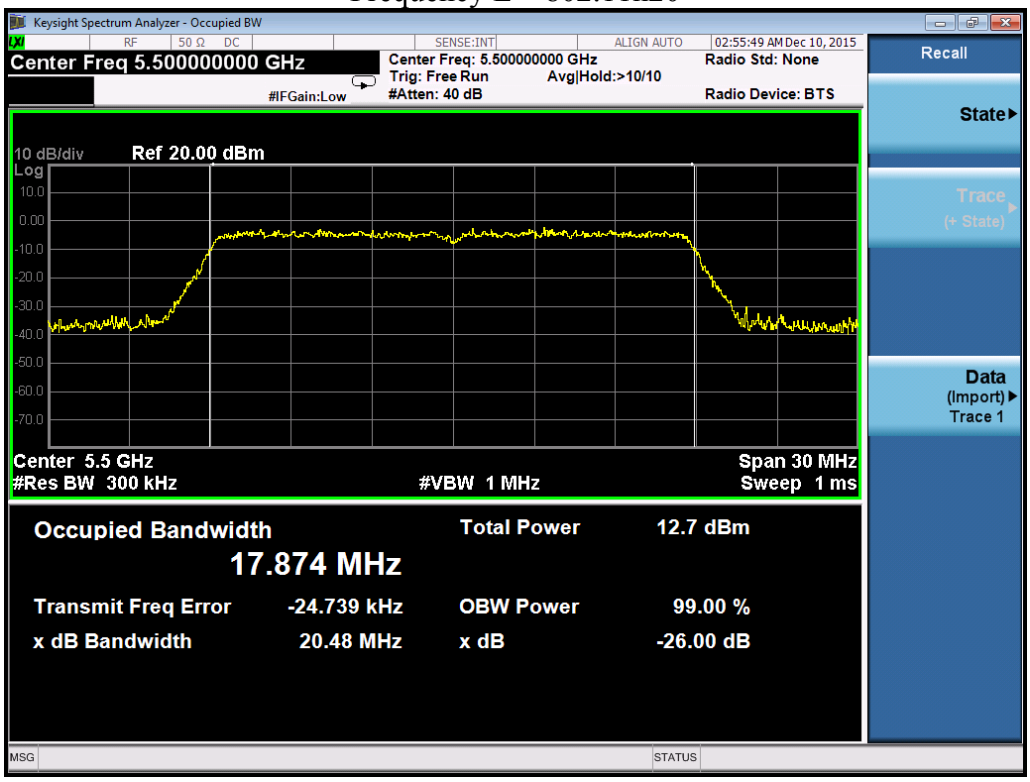
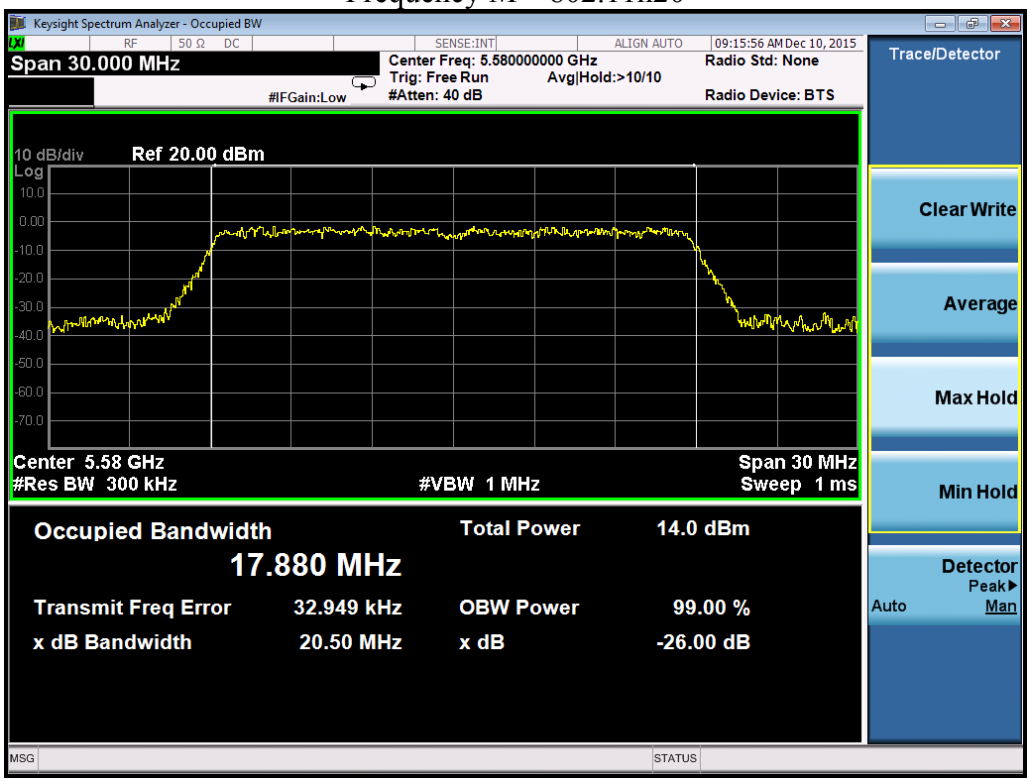


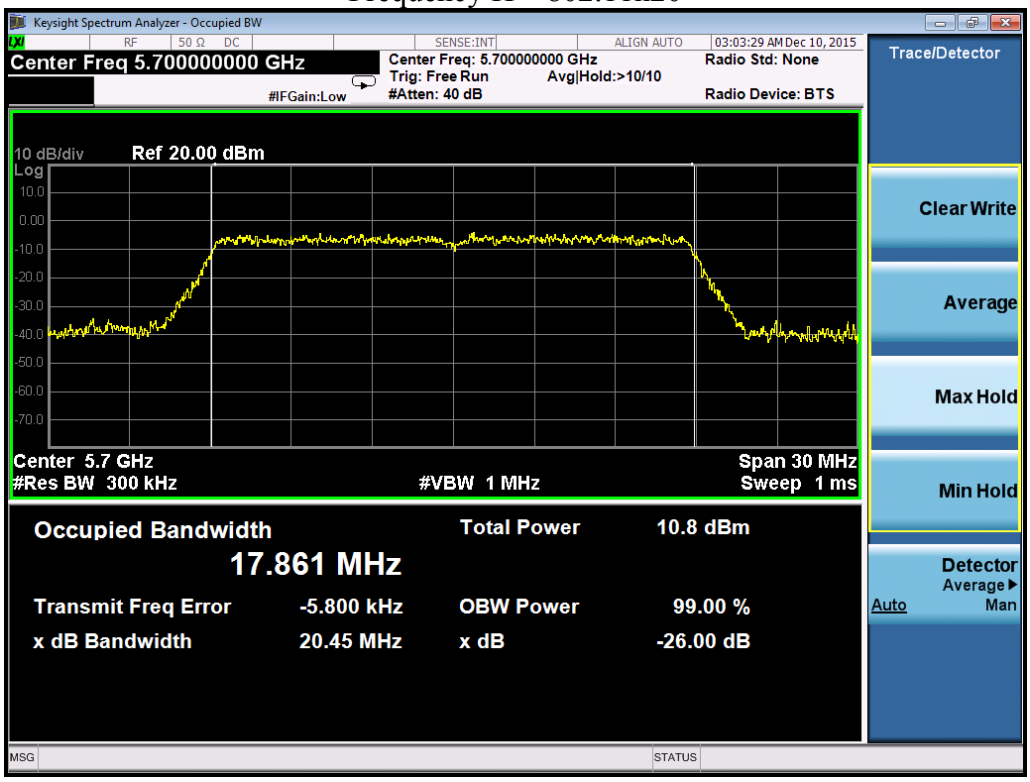
Frequency L – 802.11n20



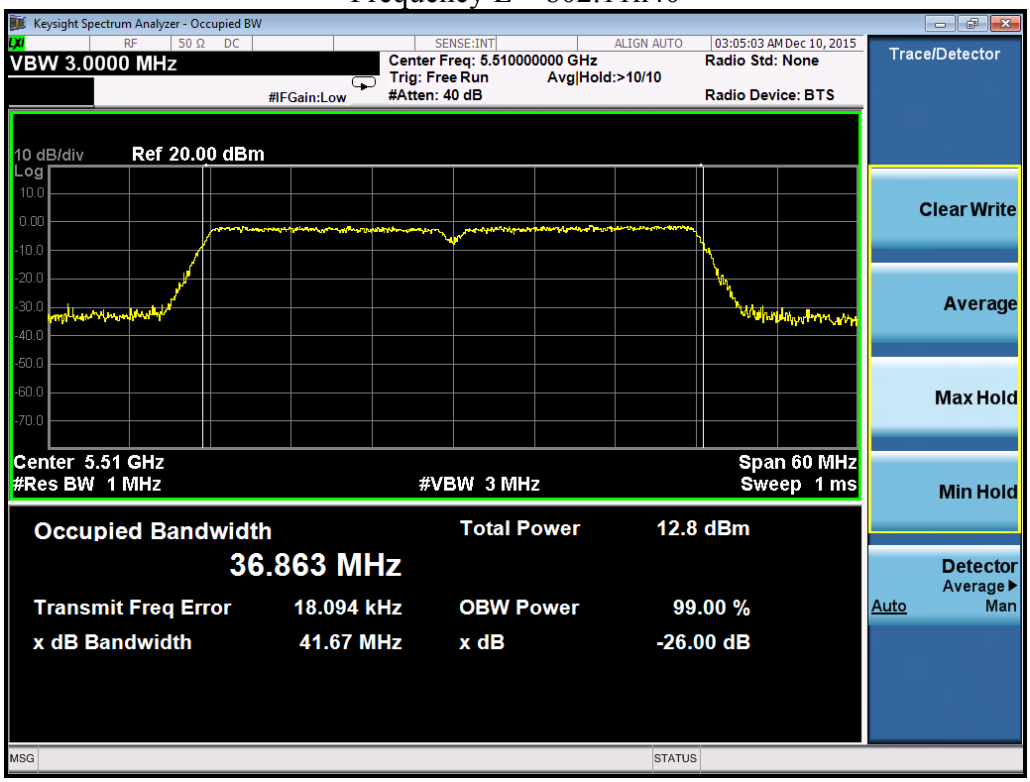
Frequency M – 802.11n20



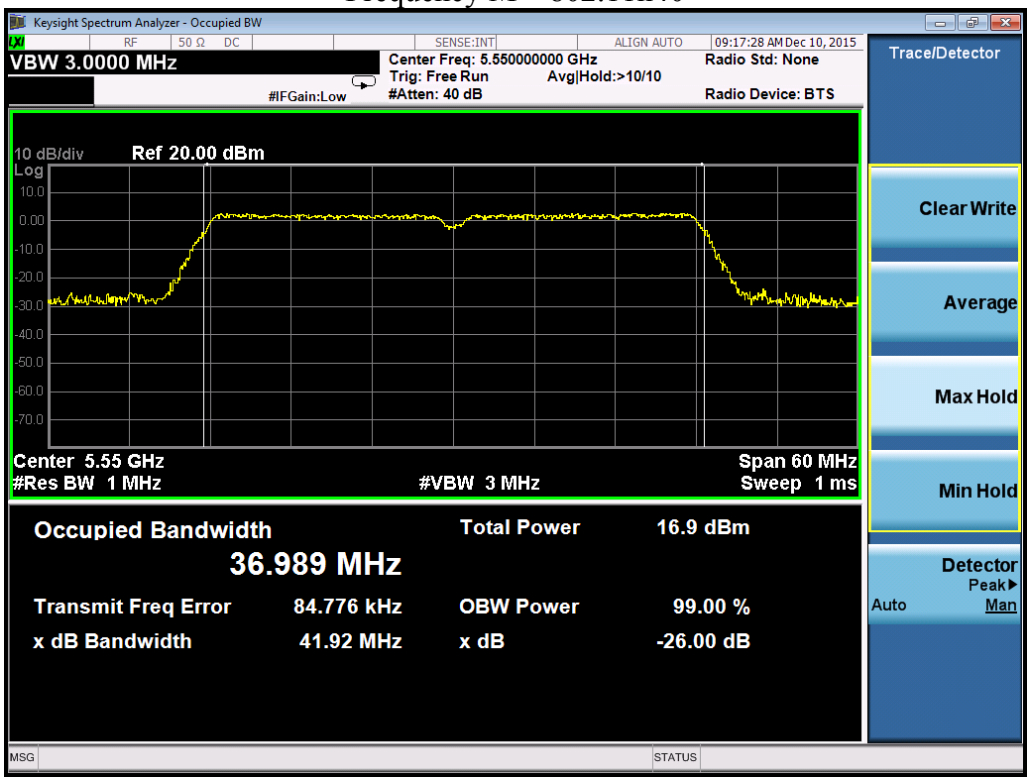
Frequency H – 802.11n20



Frequency L – 802.11n40



Frequency M – 802.11n40



Frequency H – 802.11n40