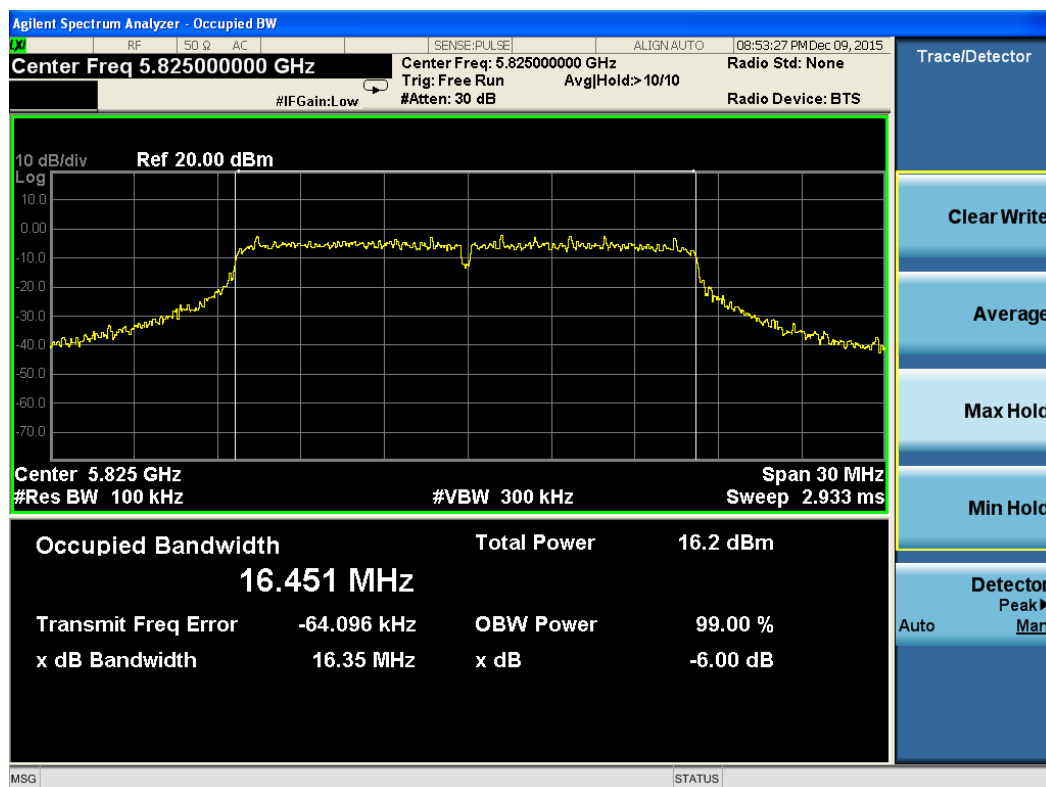
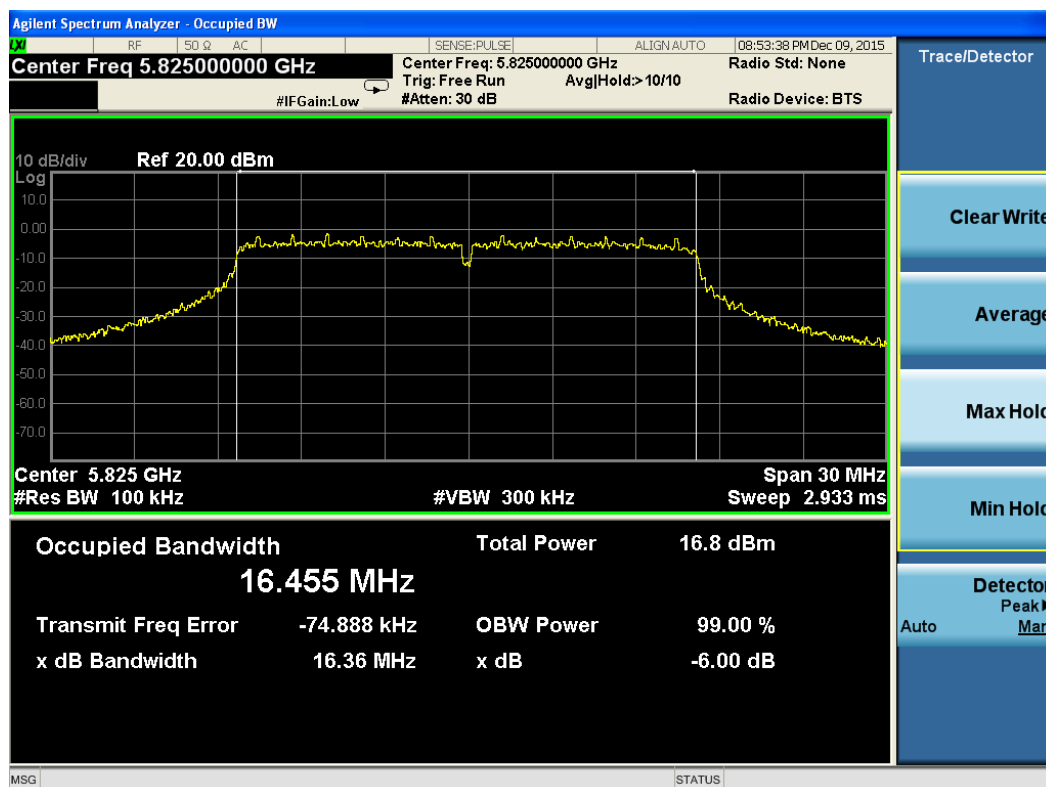




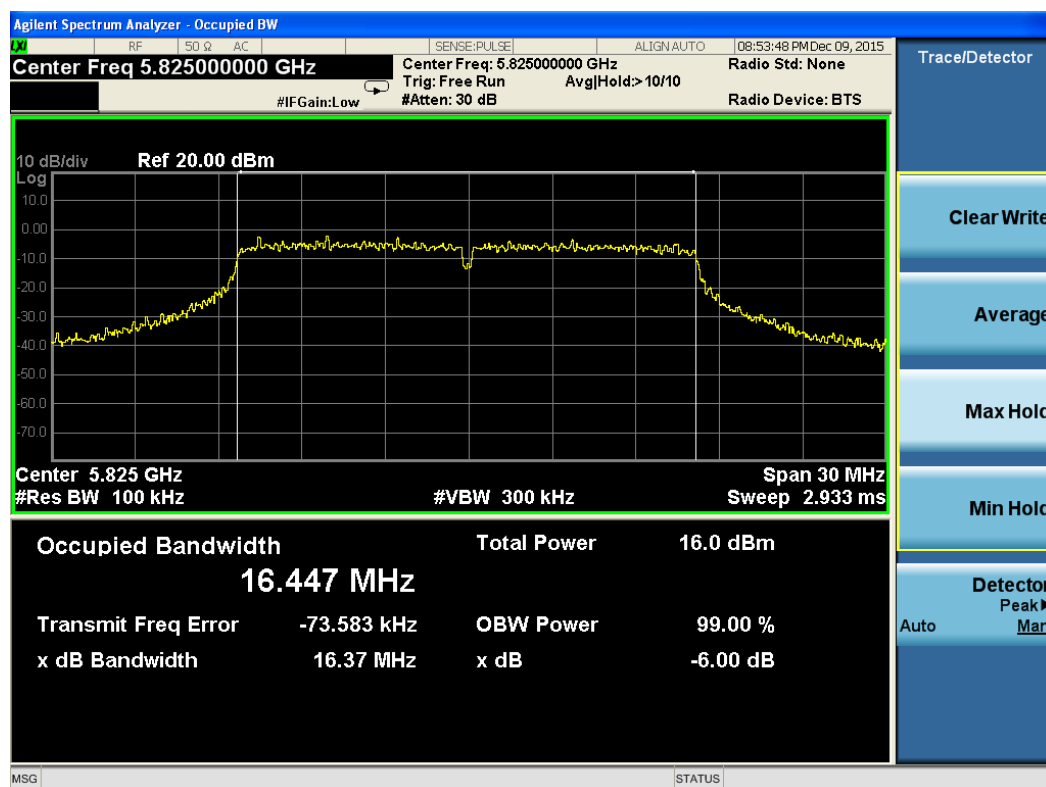
Test Plot For 802.11a-6dB BW-5825M-Chain 0



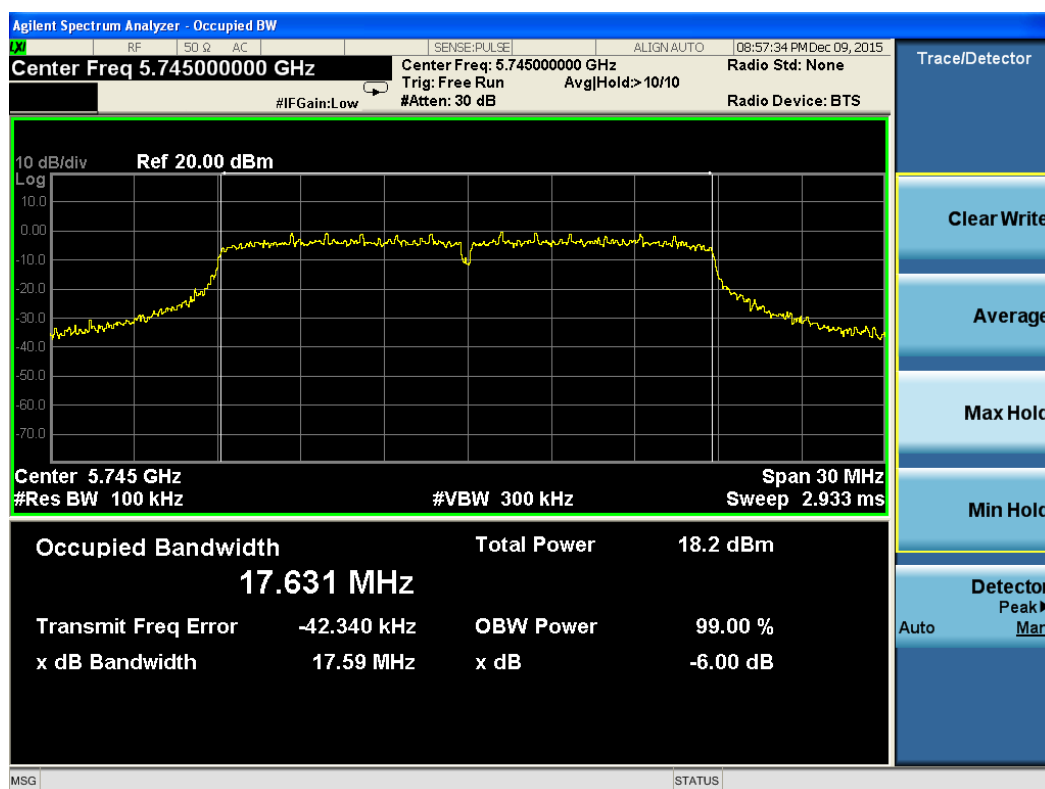
Test Plot For 802.11a-6dB BW-5825M-Chain 1



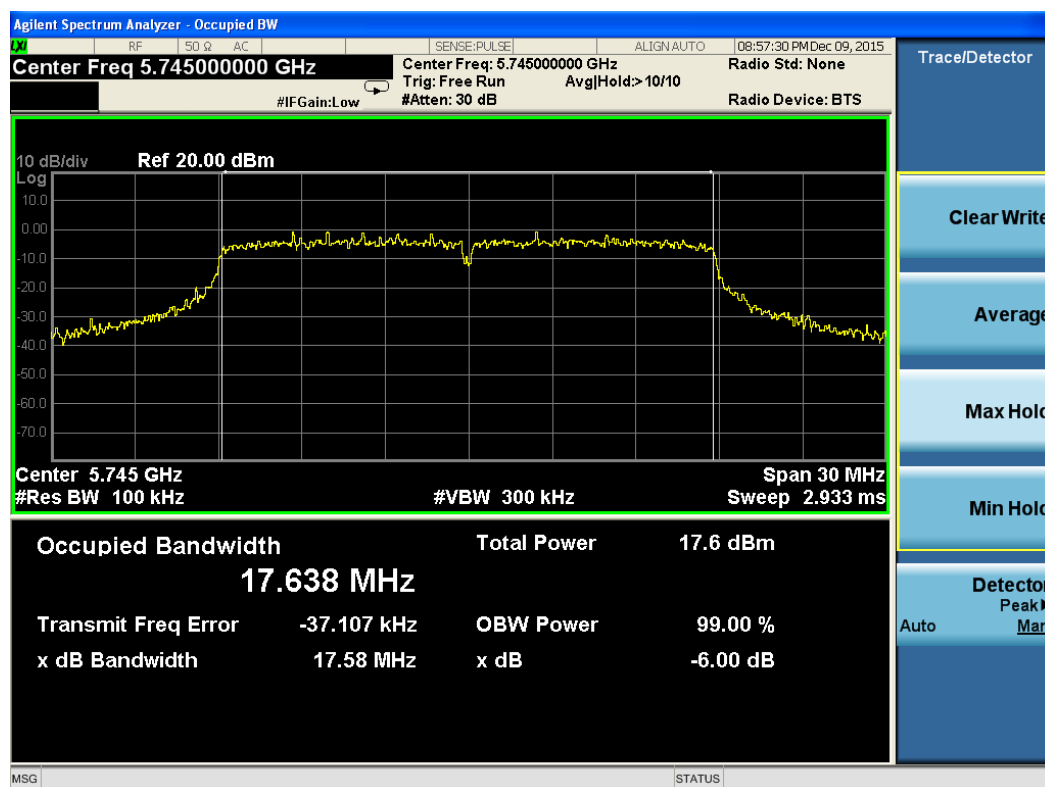
Test Plot For 802.11a-6dB BW-5825M-Chain 2



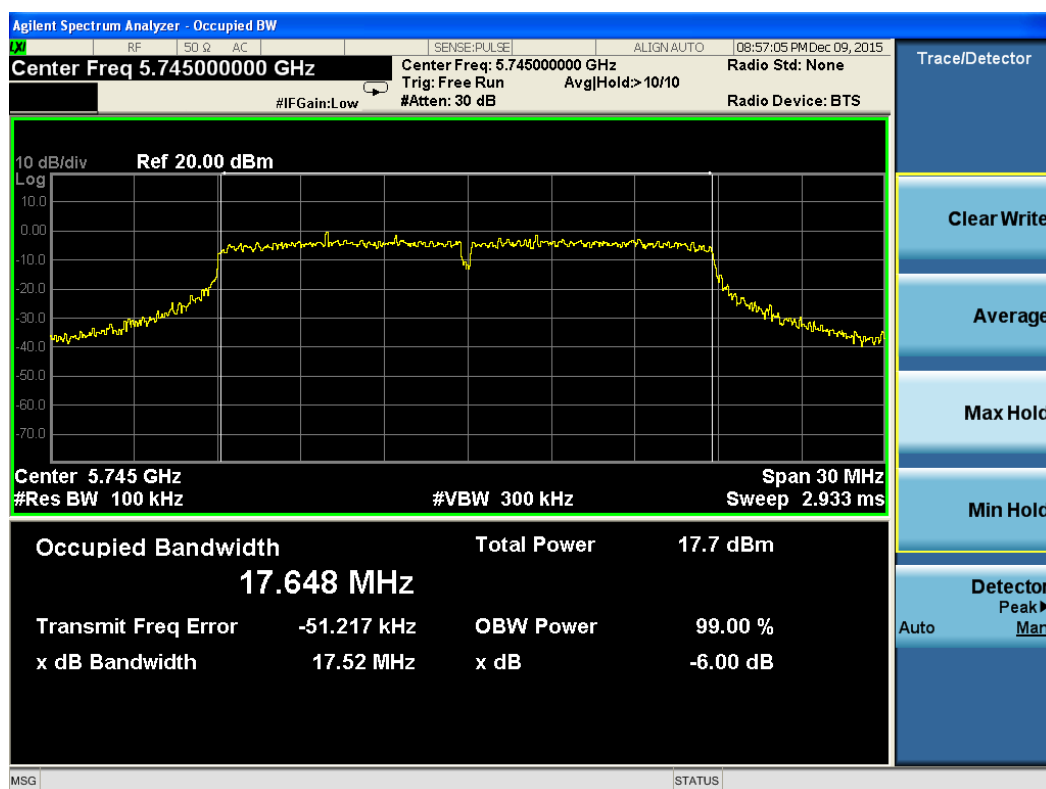
Test Plot For 802.11a-6dB BW-5825M-Chain 3



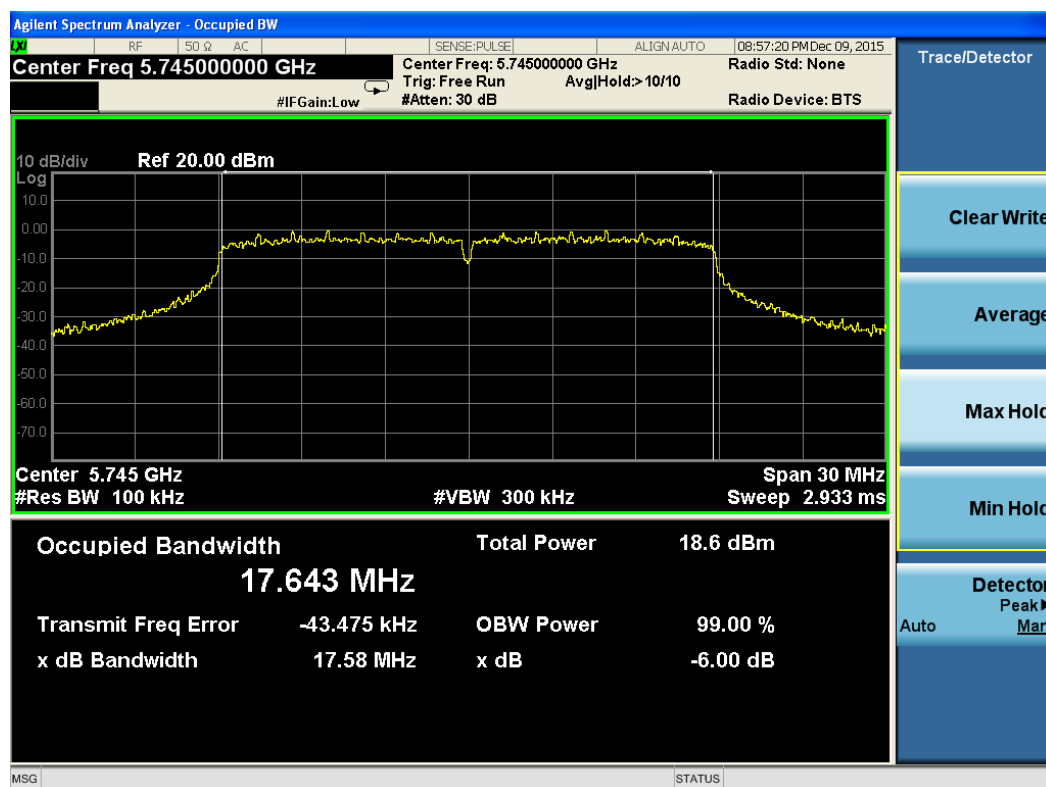
Test Plot For 802.11n(HT20)-6dB BW-5745M-Chain 0



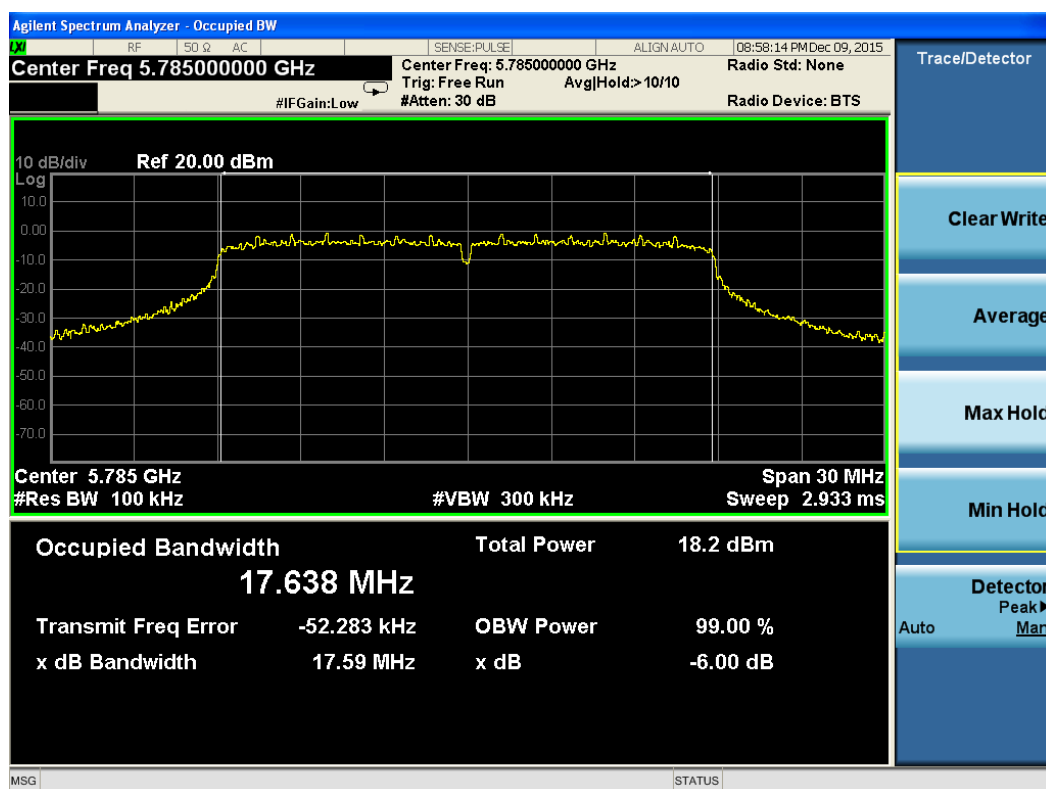
Test Plot For 802.11n(HT20)-6dB BW-5745M-Chain 1



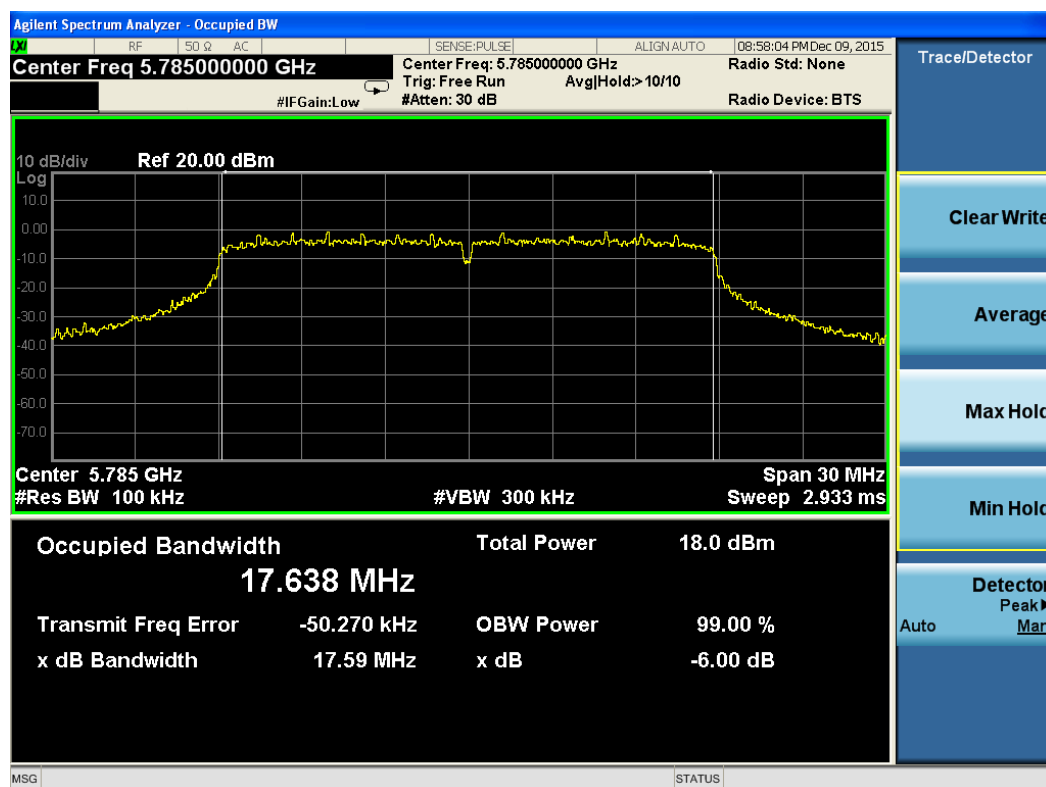
Test Plot For 802.11n(HT20)-6dB BW-5745M-Chain 2



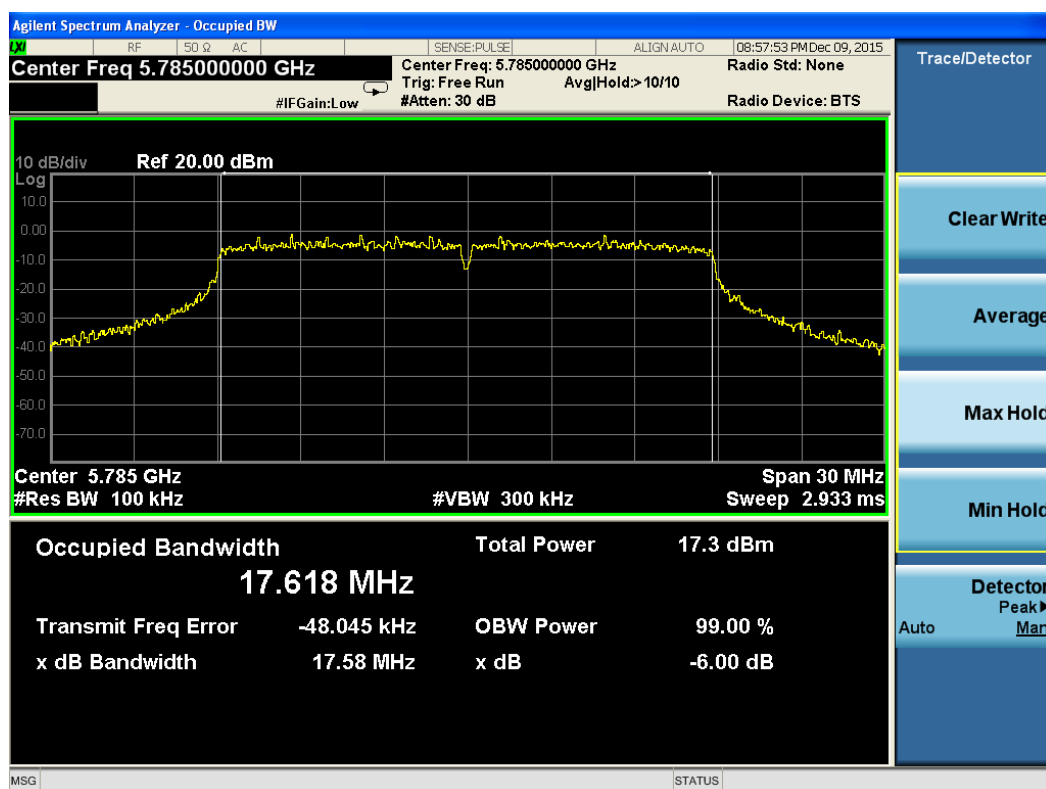
Test Plot For 802.11n(HT20)-6dB BW-5745M-Chain 3



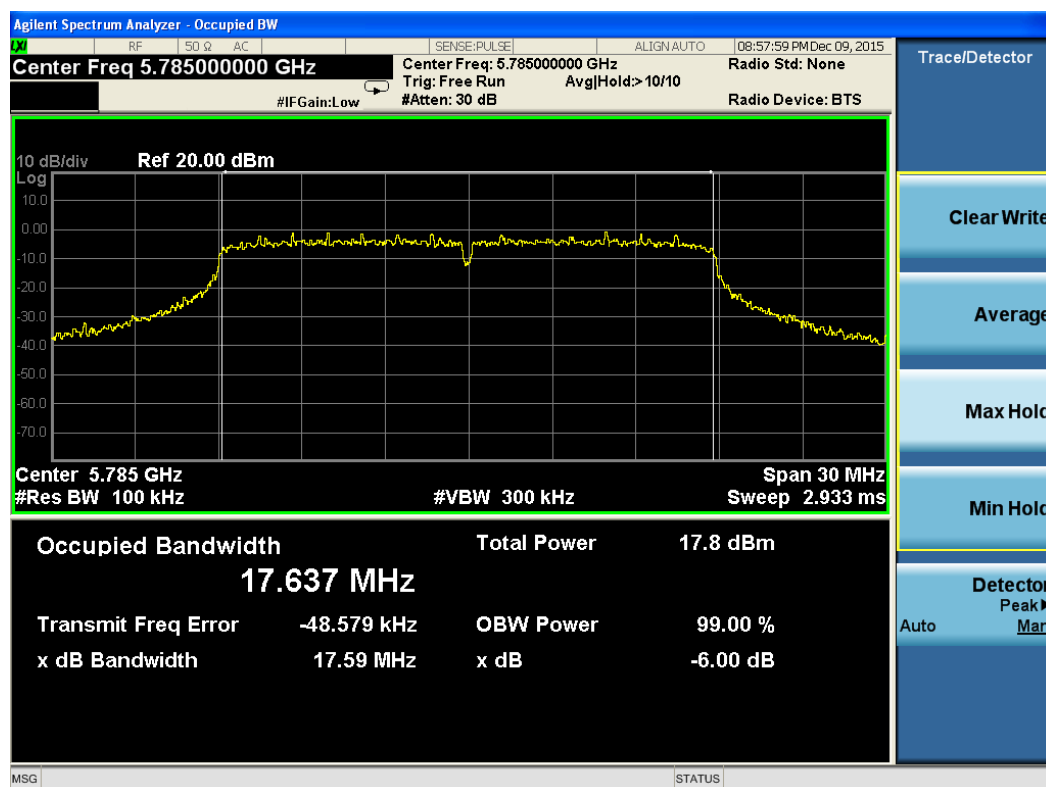
Test Plot For 802.11n(HT20)-6dB BW-5785M-Chain 0



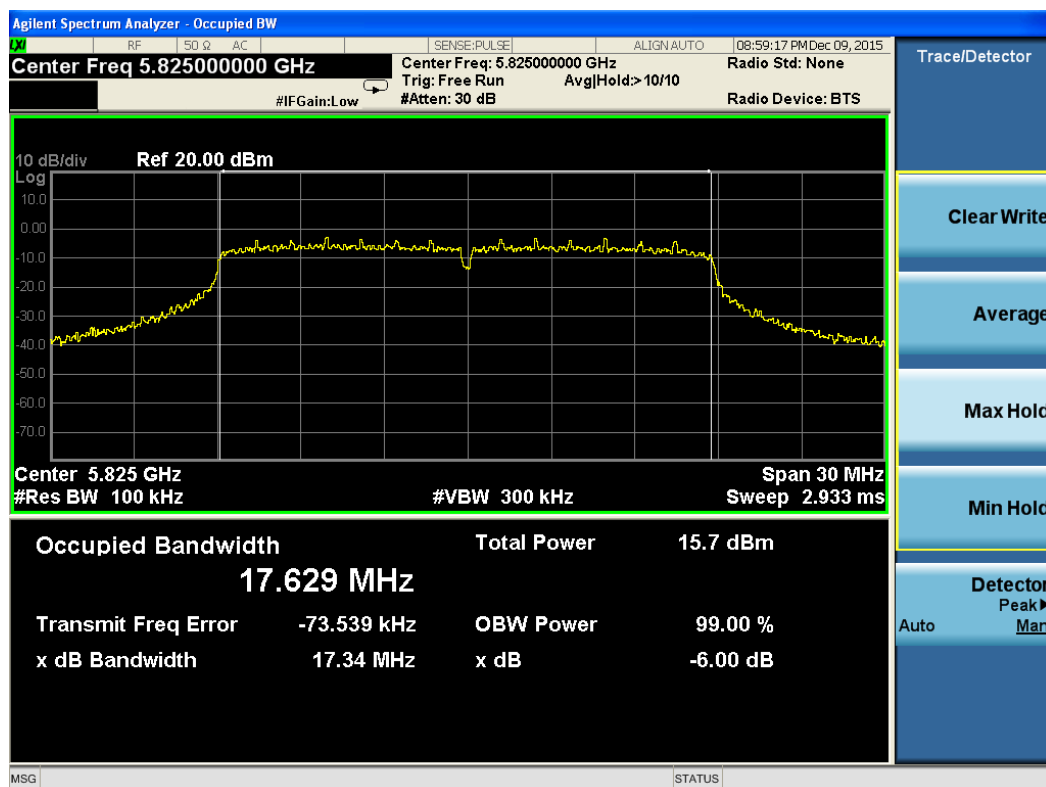
Test Plot For 802.11n(HT20)-6dB BW-5785M-Chain 1



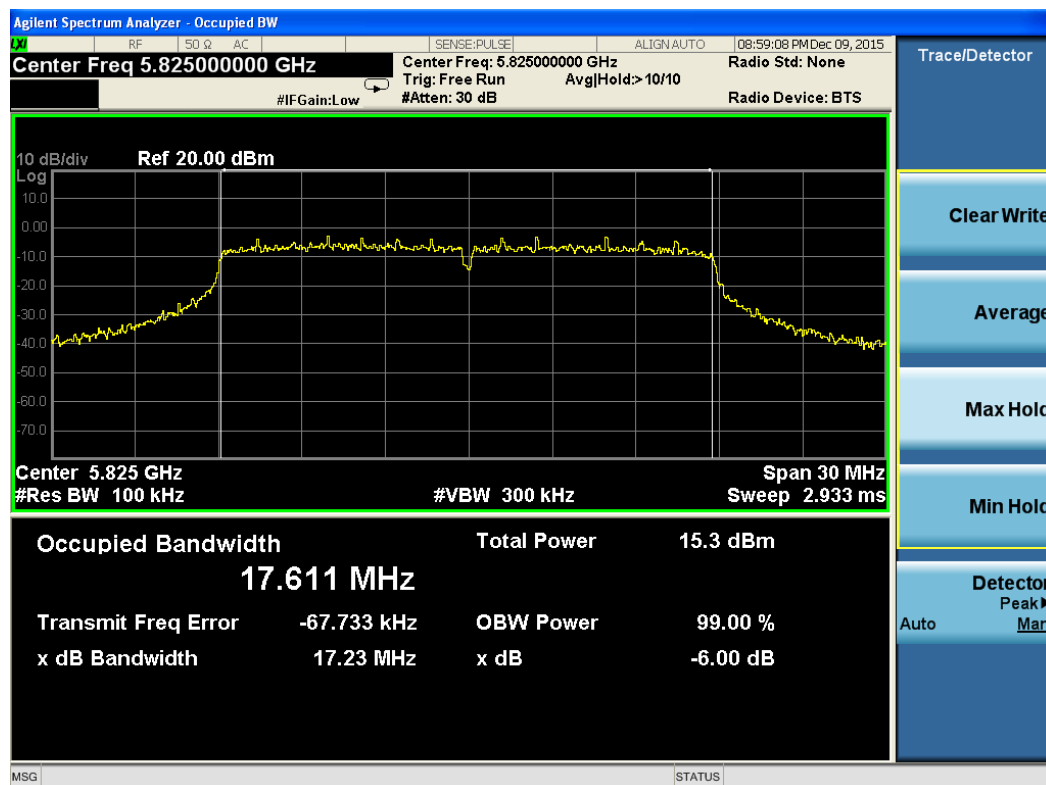
Test Plot For 802.11n(HT20)-6dB BW-5785M-Chain 2



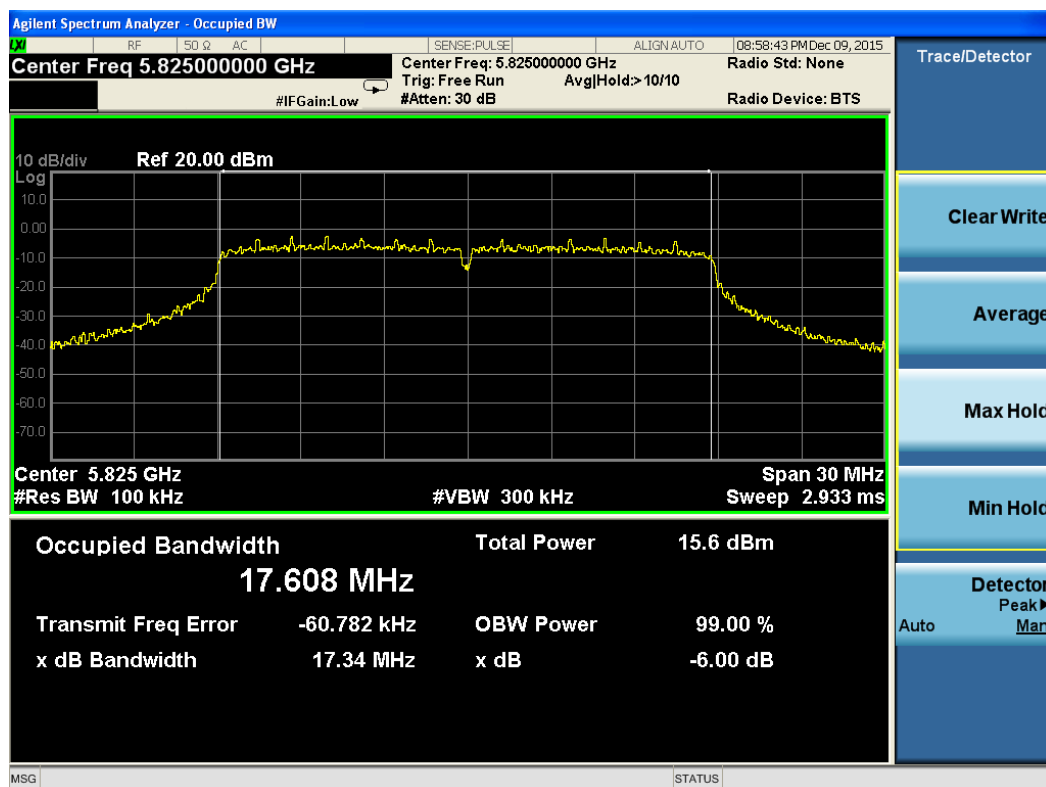
Test Plot For 802.11n(HT20)-6dB BW-5785M-Chain 3



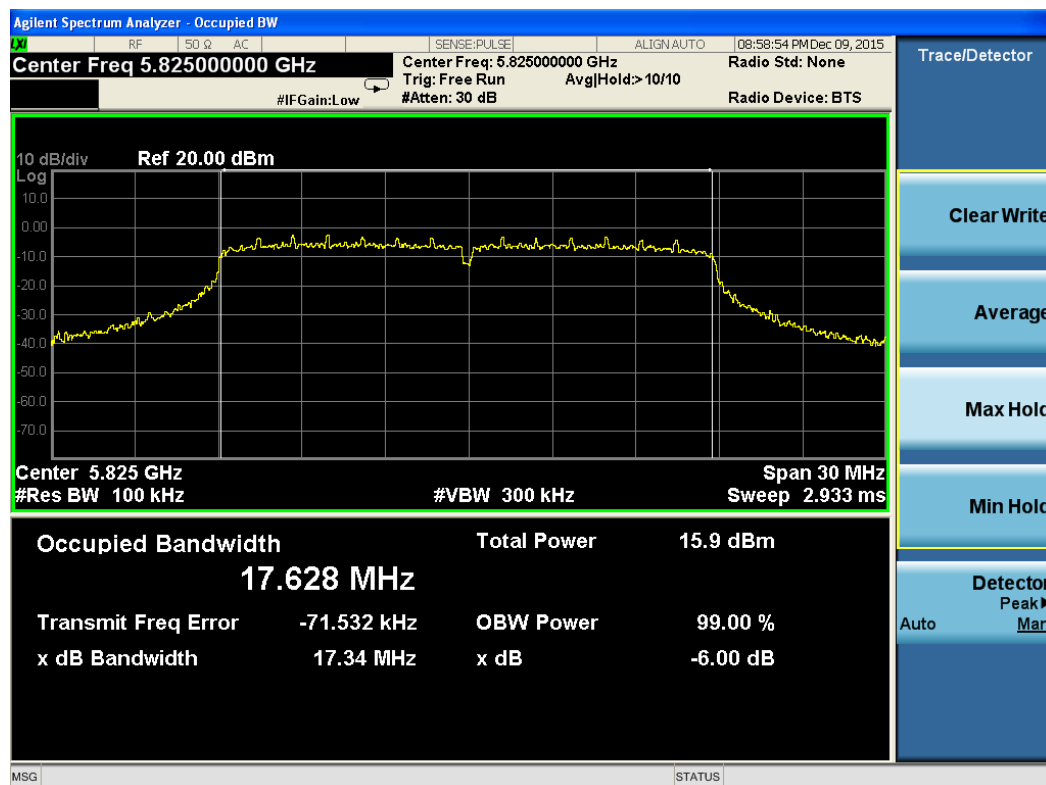
Test Plot For 802.11n(HT20)-6dB BW-5825M-Chain 0



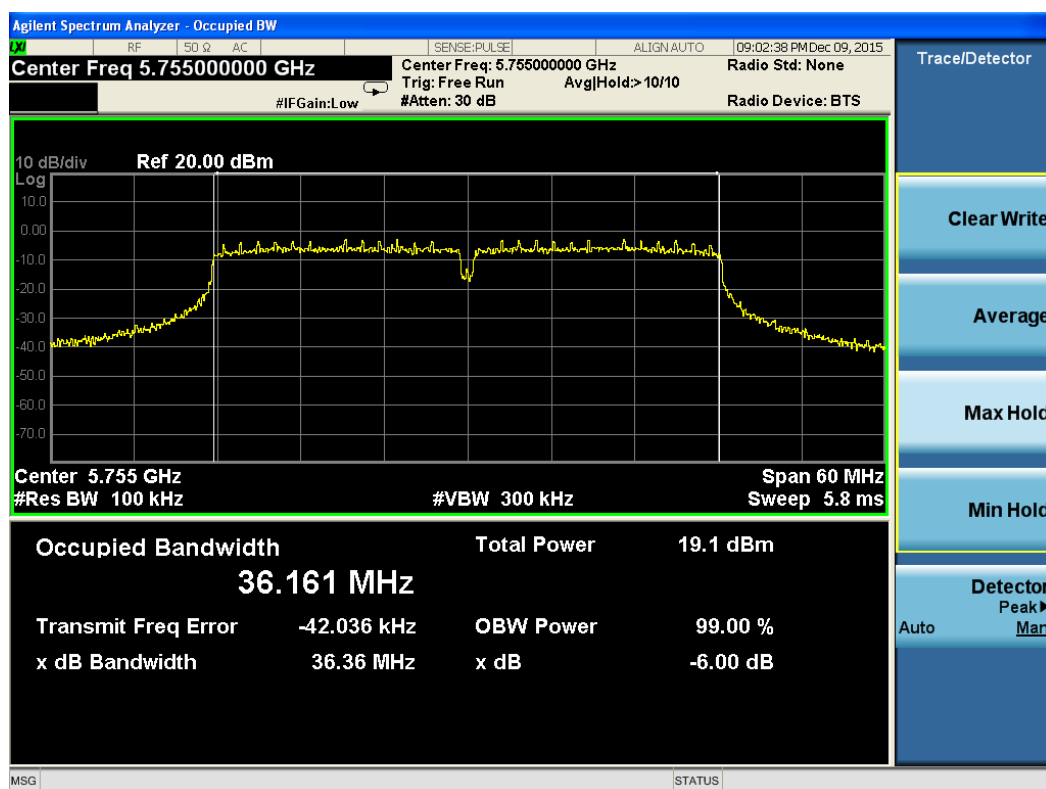
Test Plot For 802.11n(HT20)-6dB BW-5825M-Chain 1



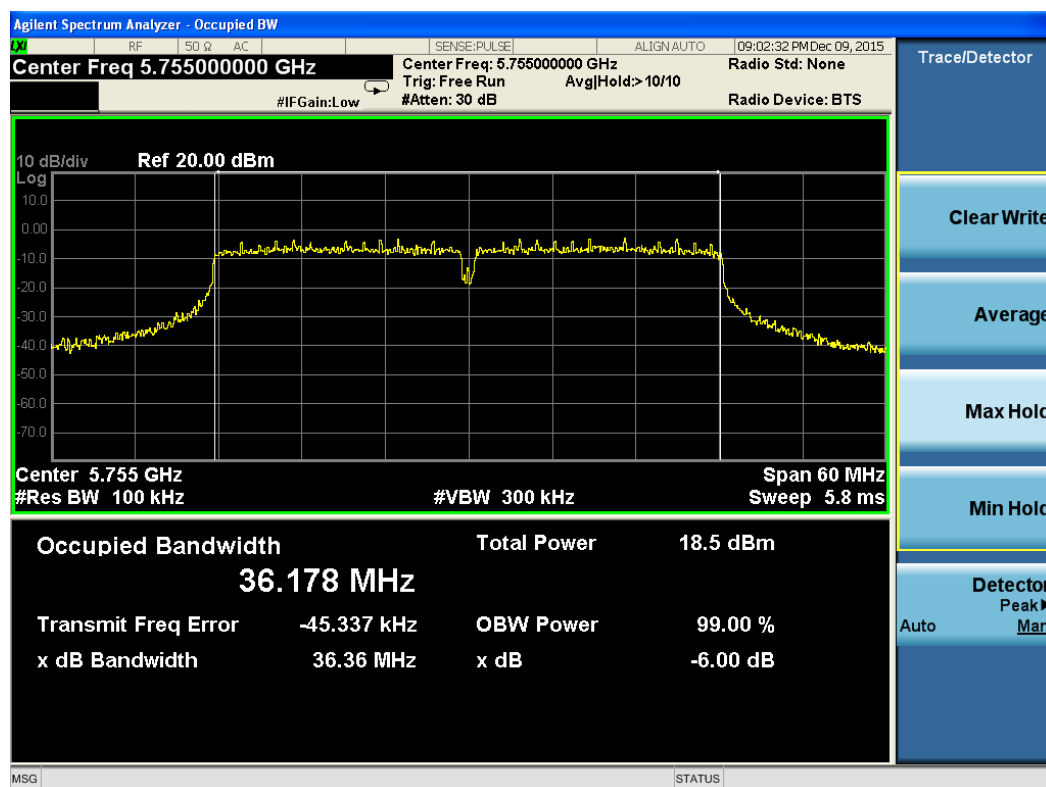
Test Plot For 802.11n(HT20)-6dB BW-5825M-Chain 2



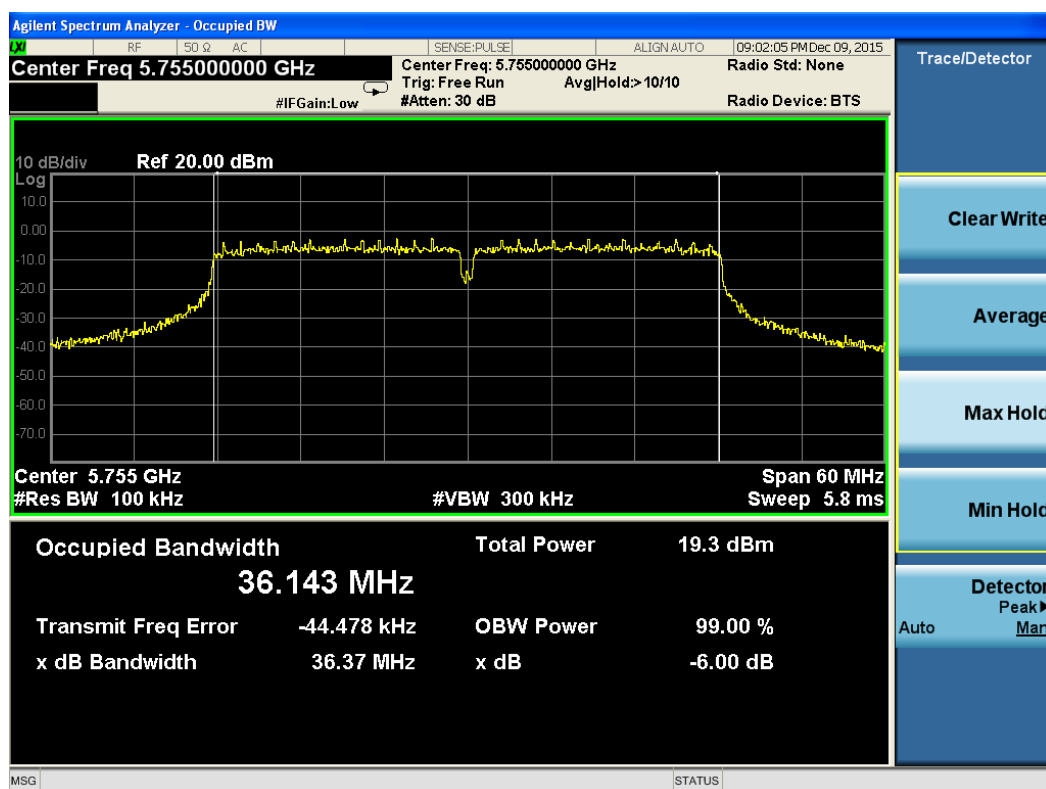
Test Plot For 802.11n(HT20)-6dB BW-5825M-Chain 3



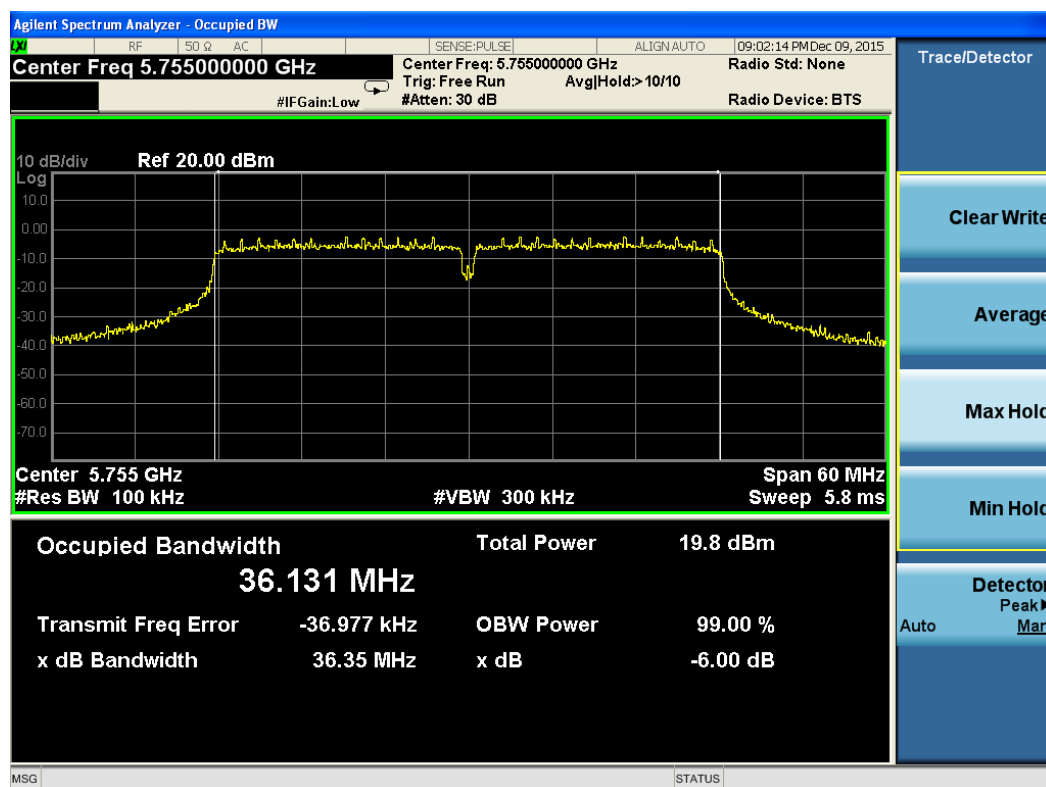
Test Plot For 802.11n(HT40)-6dB BW-5755M-Chain 0



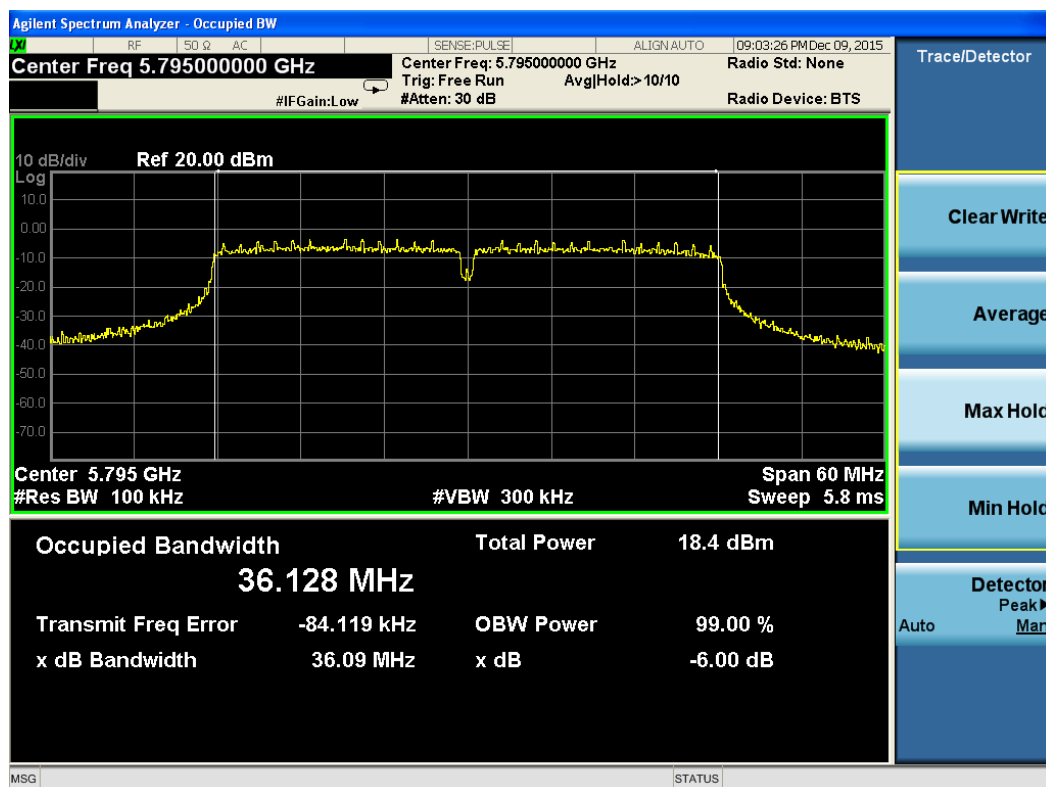
Test Plot For 802.11n(HT40)-6dB BW-5755M-Chain 1



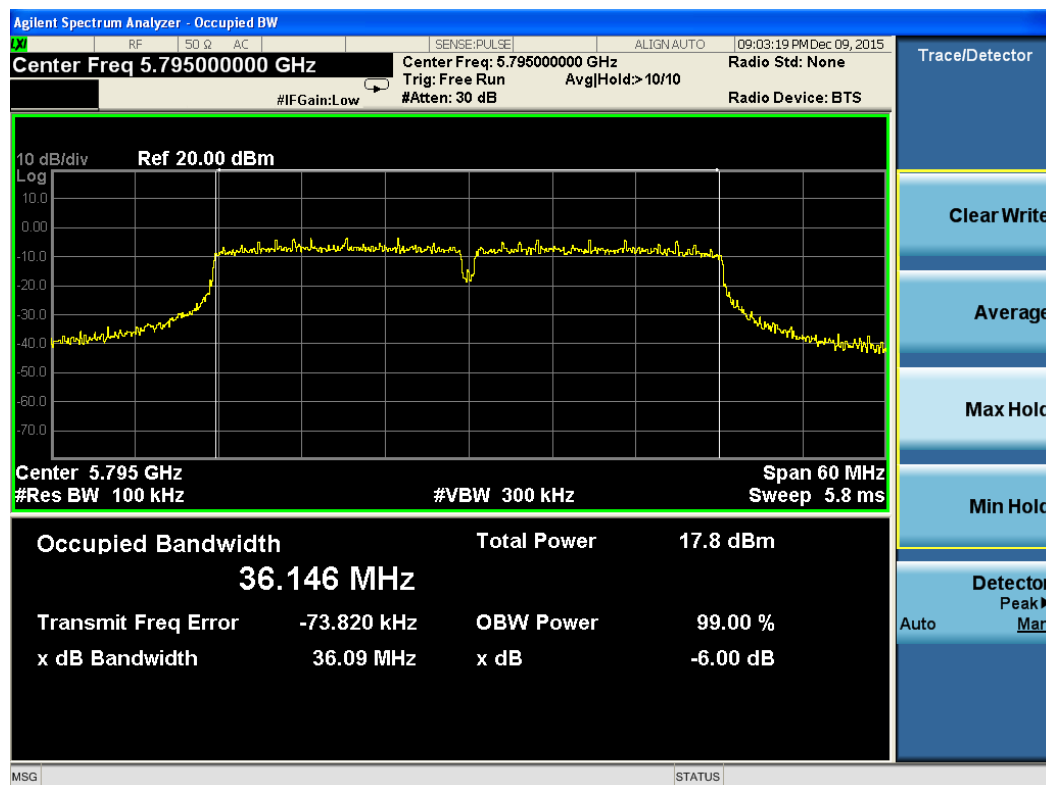
Test Plot For 802.11n(HT40)-6dB BW-5755M-Chain 2



Test Plot For 802.11n(HT40)-6dB BW-5755M-Chain 3



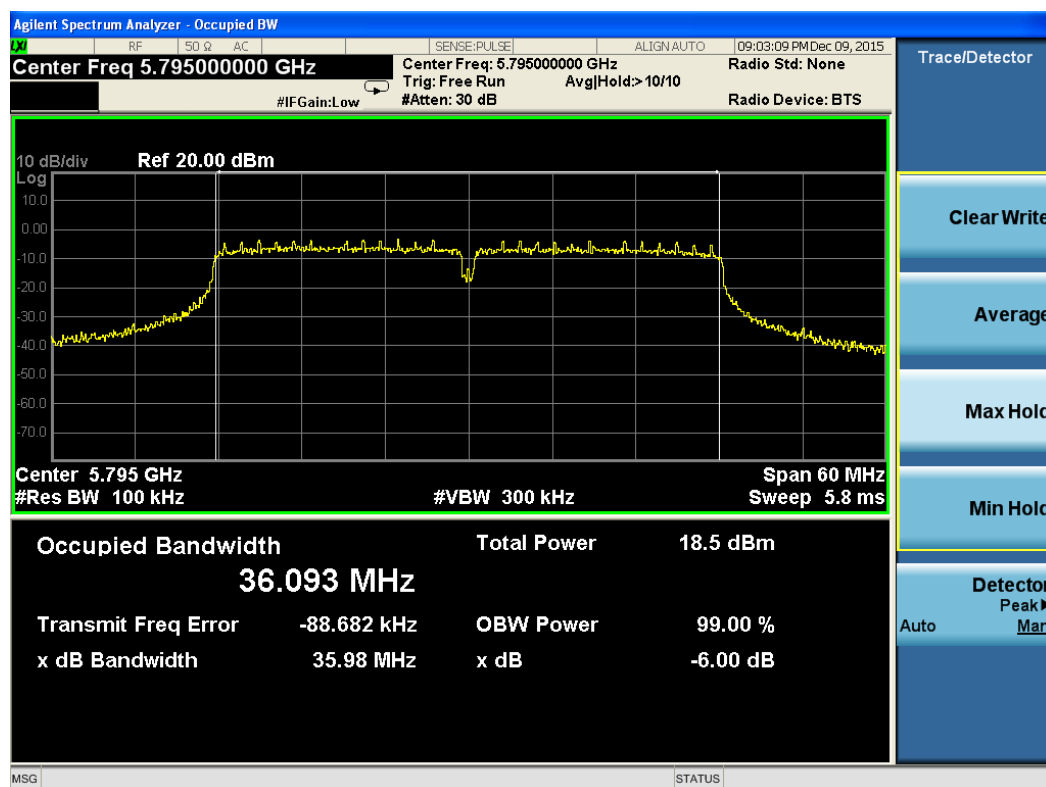
Test Plot For 802.11n(HT40)-6dB BW-5795M-Chain 0



Test Plot For 802.11n(HT40)-6dB BW-5795M-Chain 1



Test Plot For 802.11n(HT40)-6dB BW-5795M-Chain 2



Test Plot For 802.11n(HT40)-6dB BW-5795M-Chain 3

802.11a

Channel	Frequency	Chain 0		Chain 1		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
36	5180	23.02	16.841	23.02	16.835	Non-specified
40	5200	22.01	16.768	22.86	16.877	
48	5240	22.70	16.790	22.82	16.828	

Channel	Frequency	Chain 2		Chain 3		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
36	5180	22.51	16.803	22.51	16.765	Non-specified
40	5200	22.27	16.795	22.86	16.858	
48	5240	22.82	16.752	22.83	16.810	

802.11n(HT20)

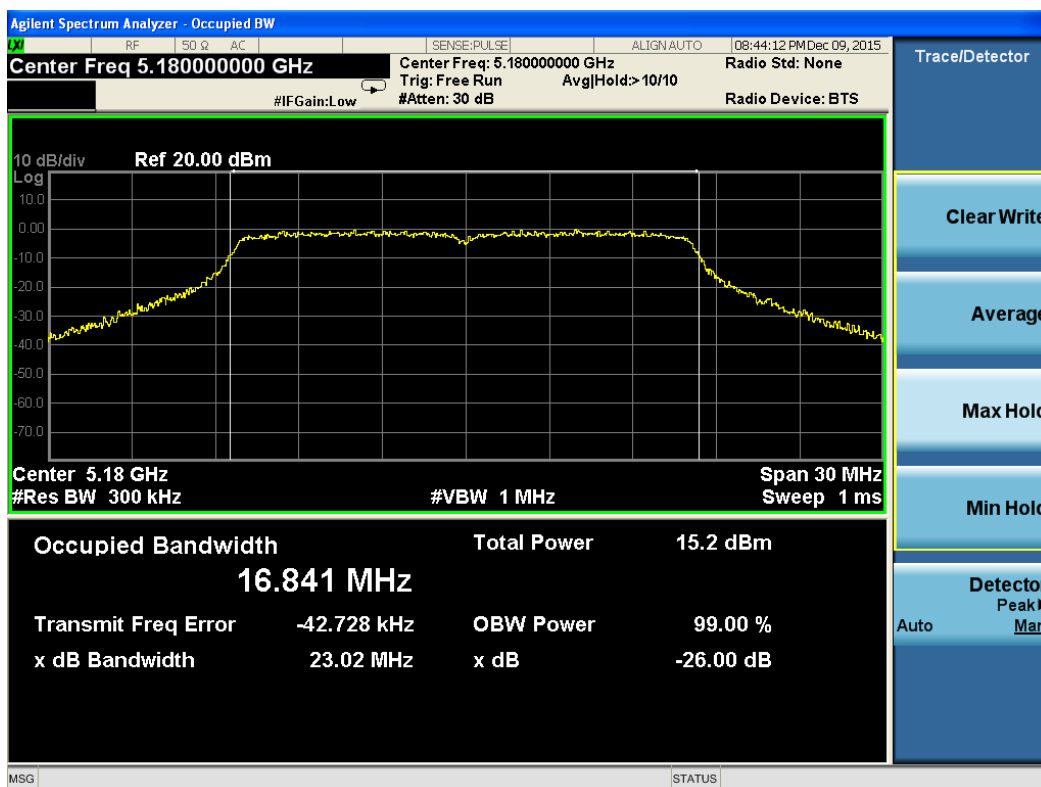
Channel	Frequency	Chain 0		Chain 1		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
36	5180	22.88	17.805	23.57	17.945	Non-specified
40	5200	23.64	17.965	23.33	17.985	
48	5240	23.54	17.961	23.66	17.967	

Channel	Frequency	Chain 2		Chain 3		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
36	5180	23.36	17.888	23.36	17.888	Non-specified
40	5200	23.23	17.886	23.23	17.886	
48	5240	23.20	17.906	23.20	17.906	

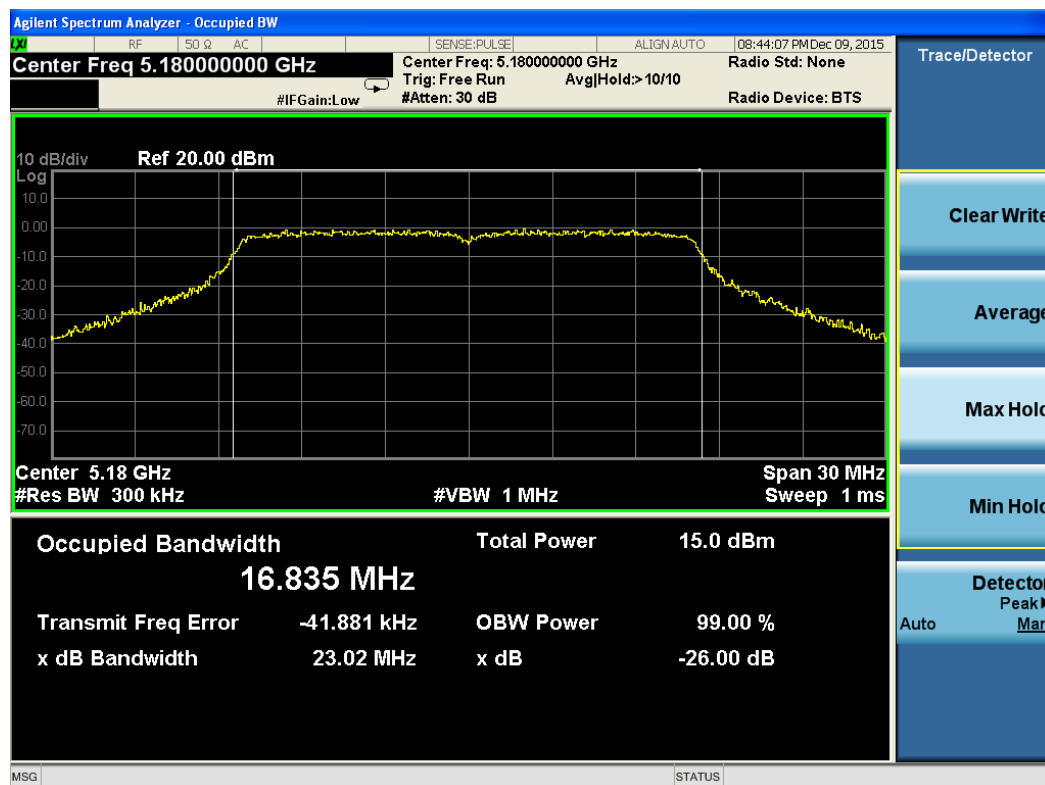
802.11n(HT40)

Channel	Frequency	Chain 0		Chain 1		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
38	5190	45.15	36.272	44.22	36.218	Non-specified
46	5230	44.69	36.261	40.29	36.288	

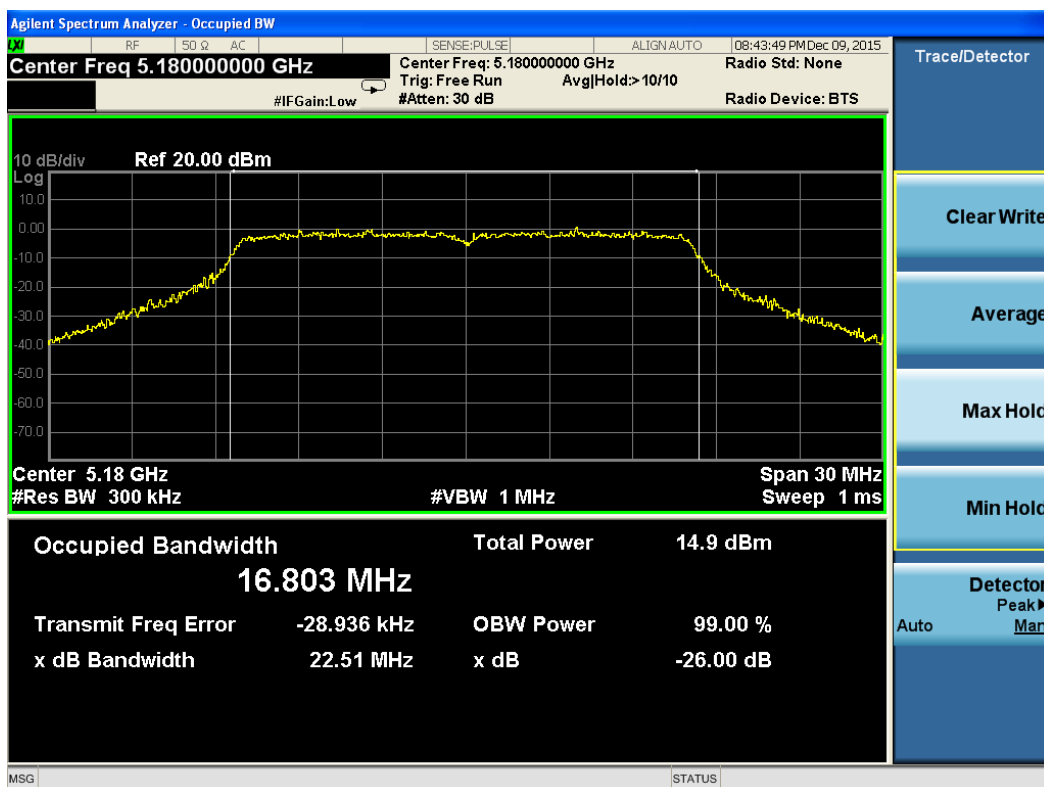
Channel	Frequency	Chain 2		Chain 3		Limit
		26dB BW (MHz)	99% BW (MHz)	26dB BW (MHz)	99% BW (MHz)	
38	5190	45.03	36.276	44.87	36.206	Non-specified
46	5230	45.86	36.273	43.26	36.265	



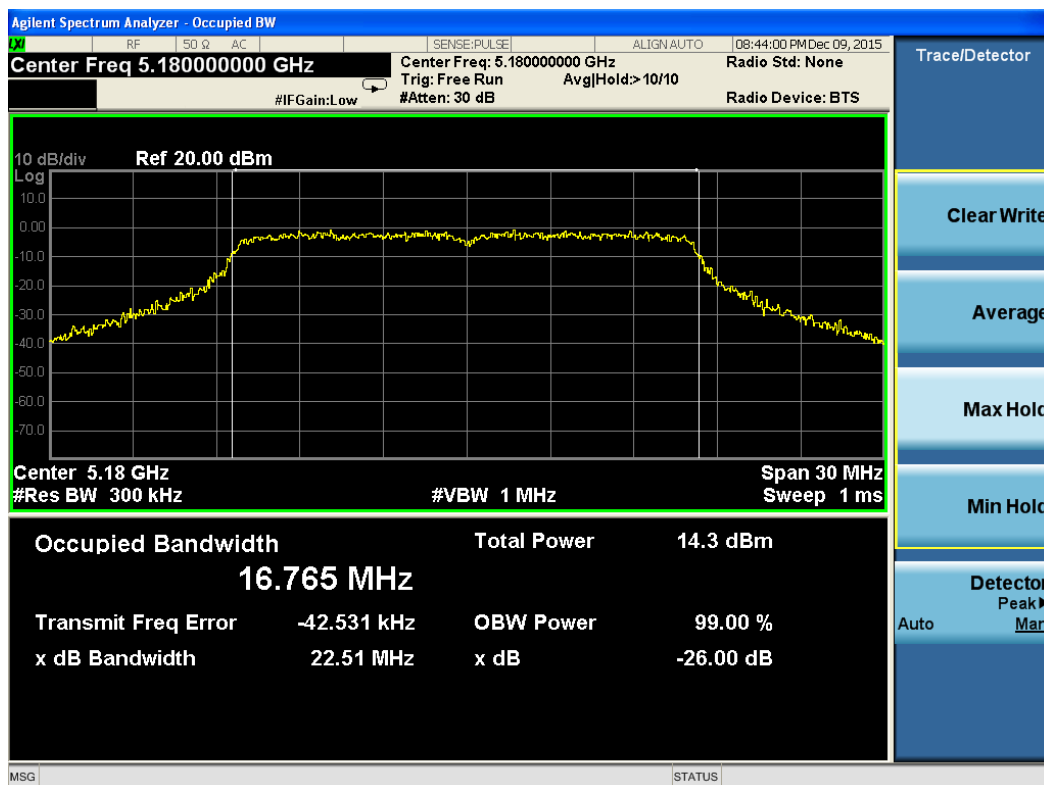
Test Plot For 802.11a-26dB BW-5180M-Chain 0



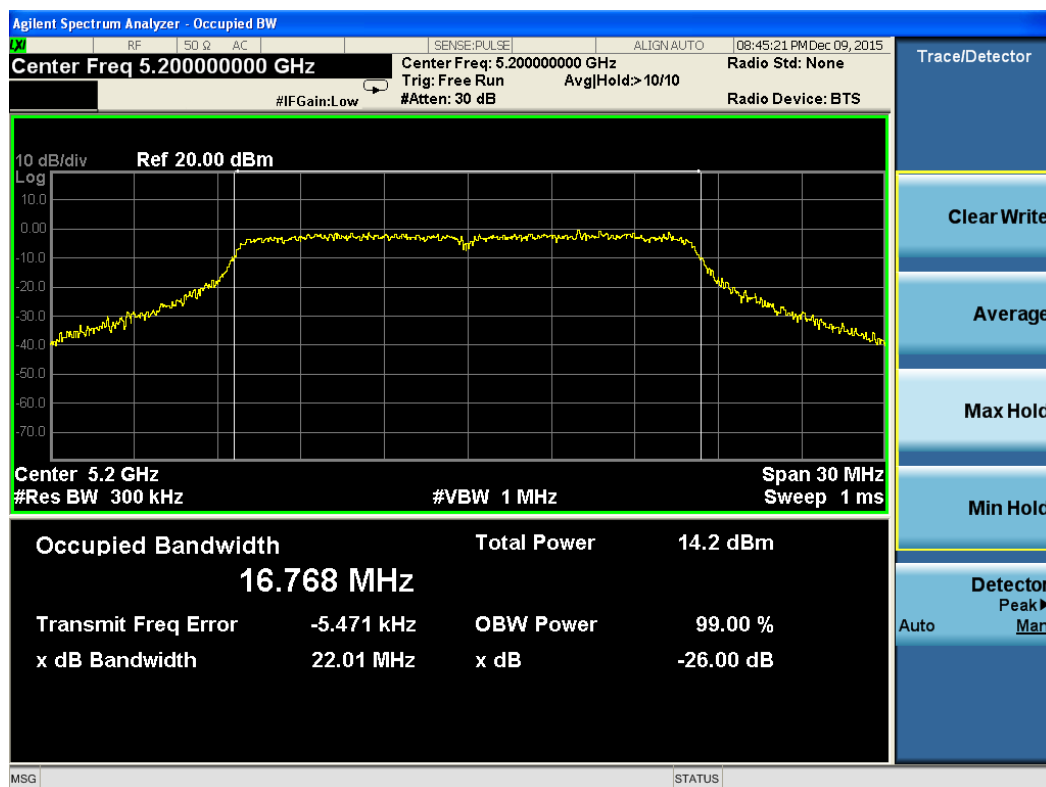
Test Plot For 802.11a-26dB BW-5180M-Chain 1



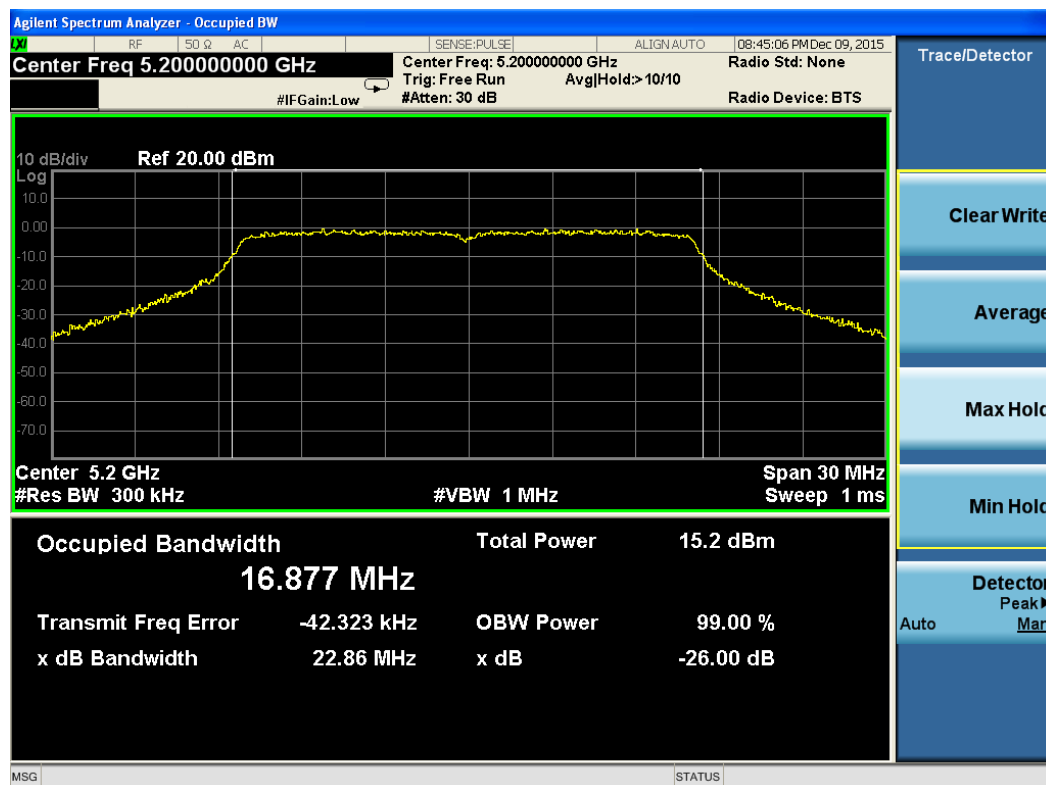
Test Plot For 802.11a-26dB BW-5180M-Chain 2



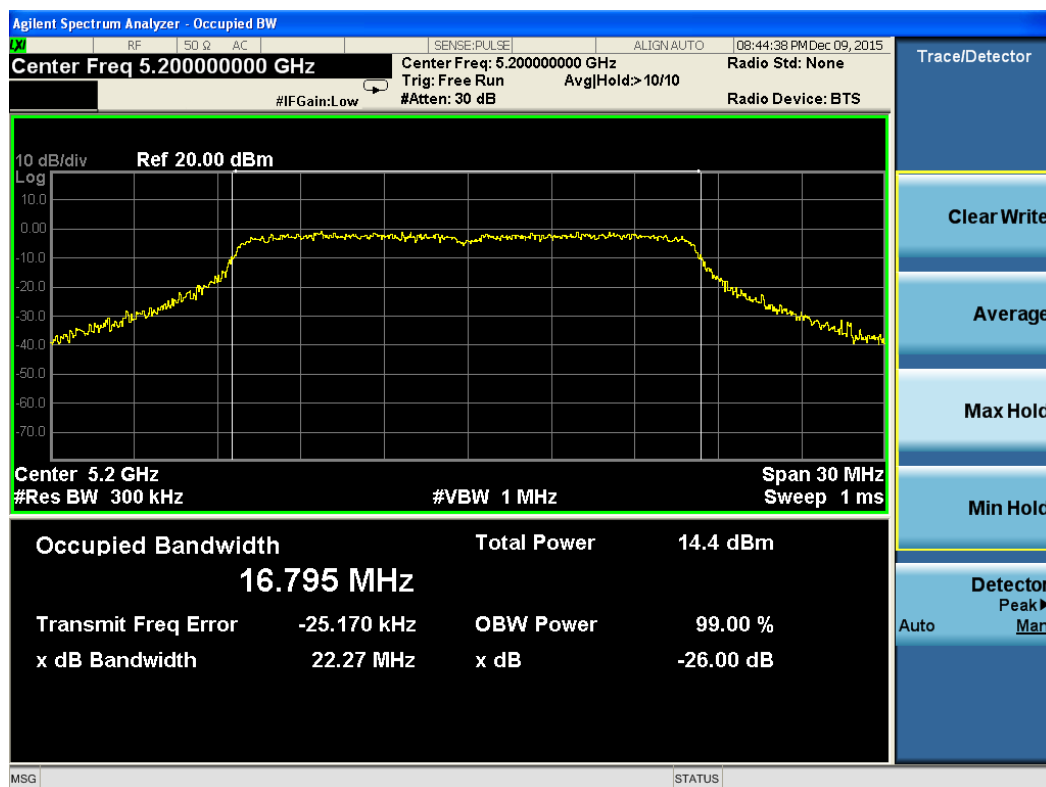
Test Plot For 802.11a-26dB BW-5180M-Chain 3



Test Plot For 802.11a-26dB BW-5200M-Chain 0



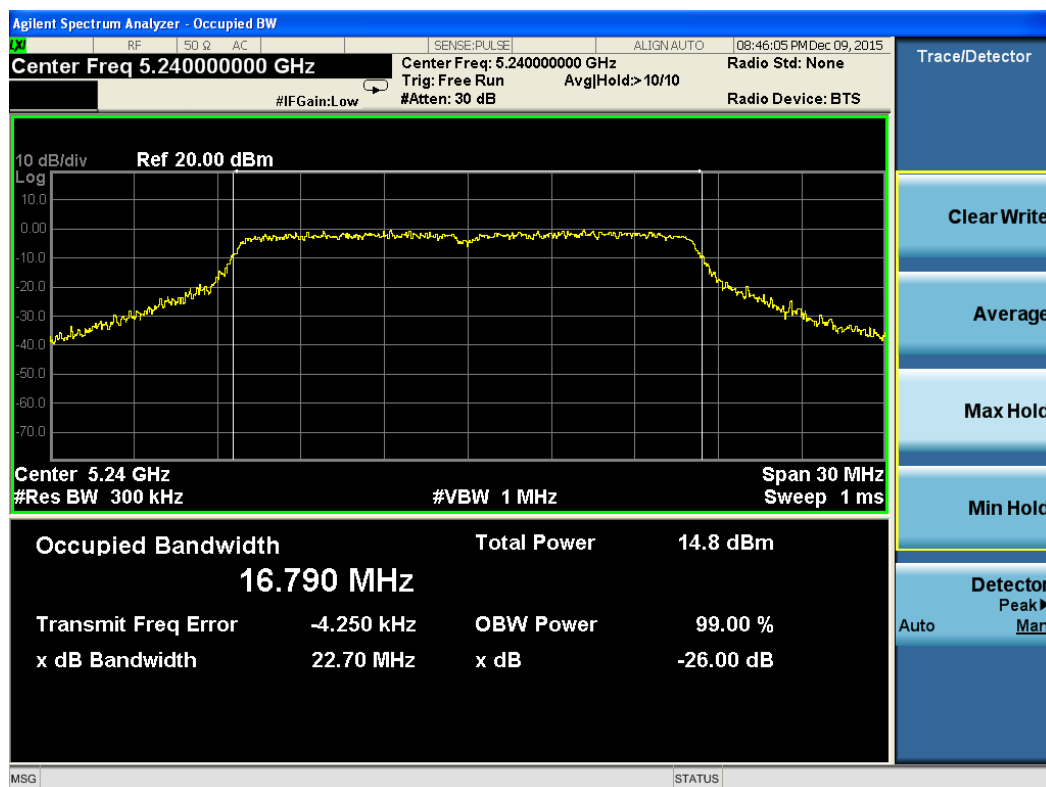
Test Plot For 802.11a-26dB BW-5200M-Chain 1



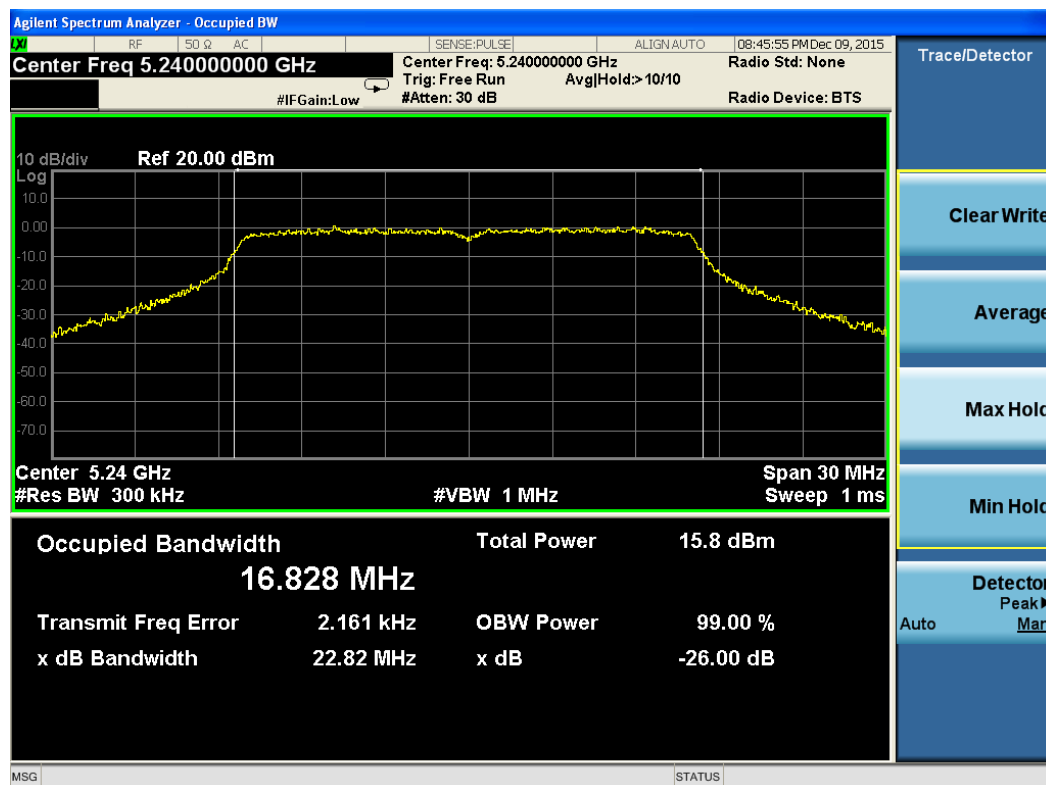
Test Plot For 802.11a-26dB BW-5200M-Chain 2



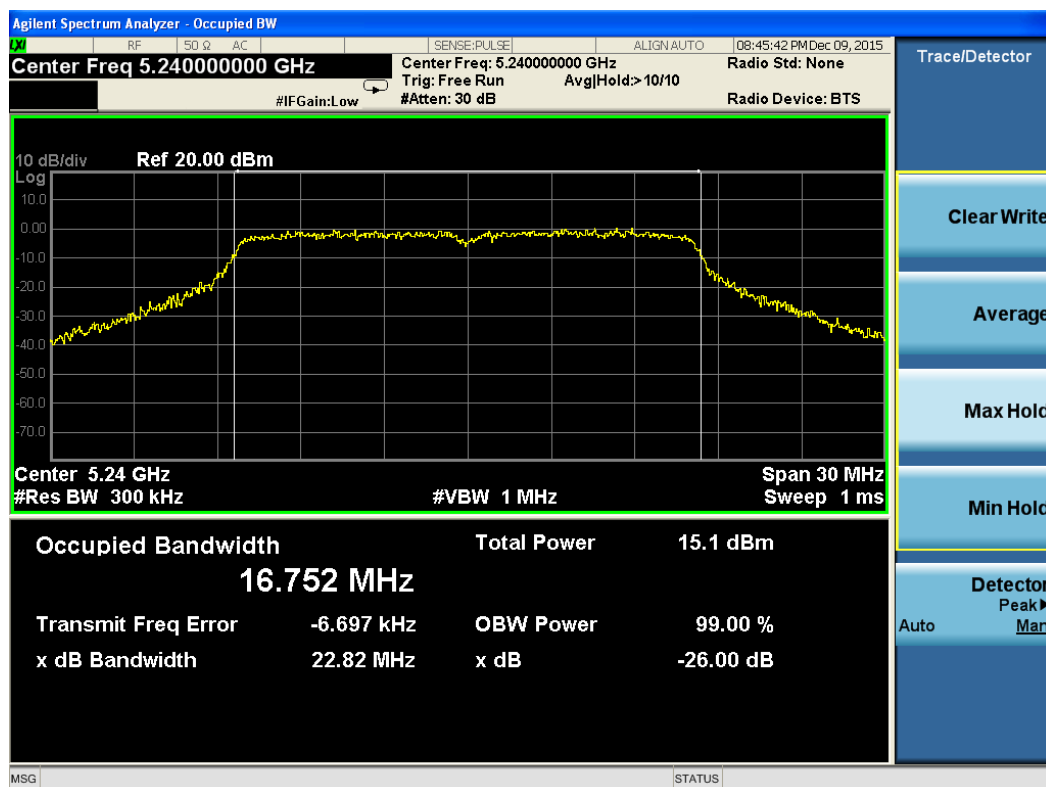
Test Plot For 802.11a-26dB BW-5200M-Chain 3



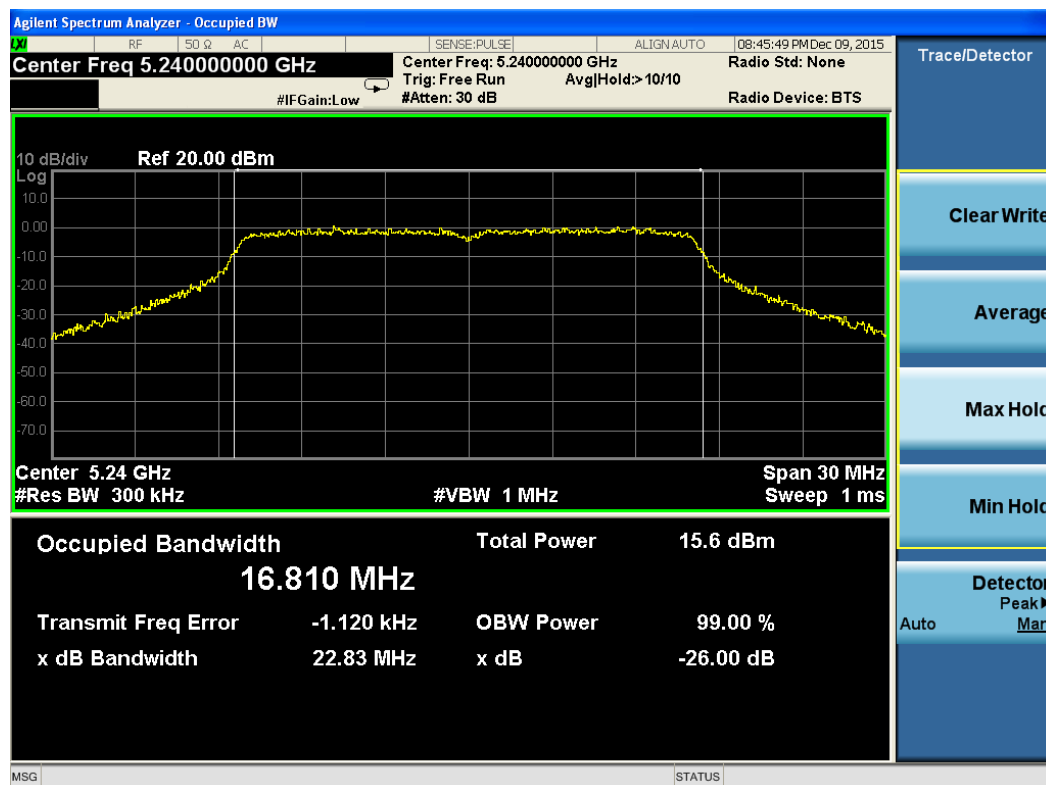
Test Plot For 802.11a-26dB BW-5240M-Chain 0



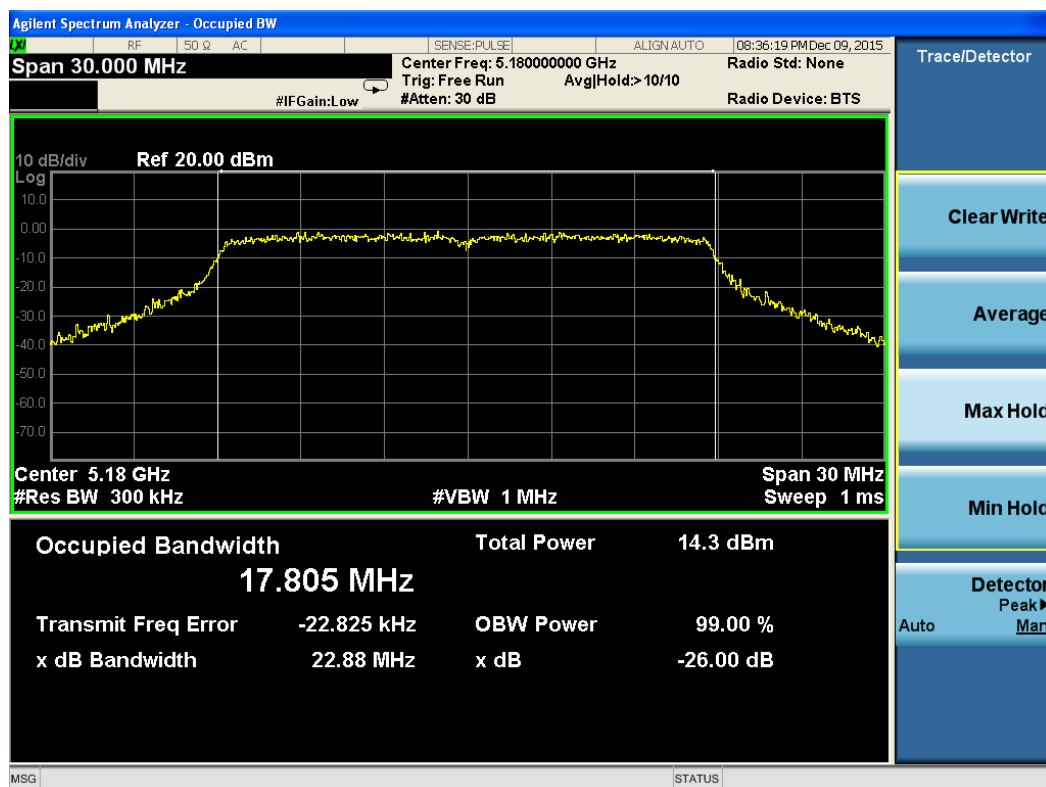
Test Plot For 802.11a-26dB BW-5240M-Chain 1



Test Plot For 802.11a-26dB BW-5240M-Chain 2



Test Plot For 802.11a-26dB BW-5240M-Chain 3



Test Plot For 802.11n(HT20)-26dB BW-5180M-Chain 0



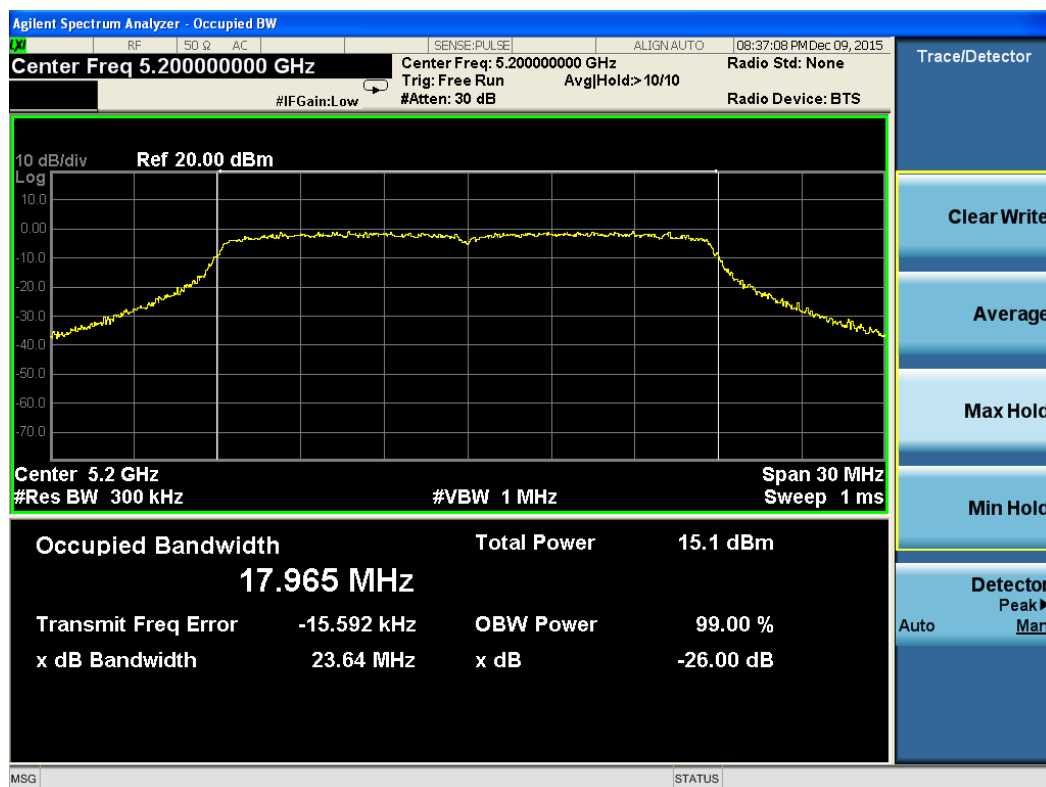
Test Plot For 802.11n(HT20)-26dB BW-5180M-Chain 1



Test Plot For 802.11n(HT20)-26dB BW-5180M-Chain 2



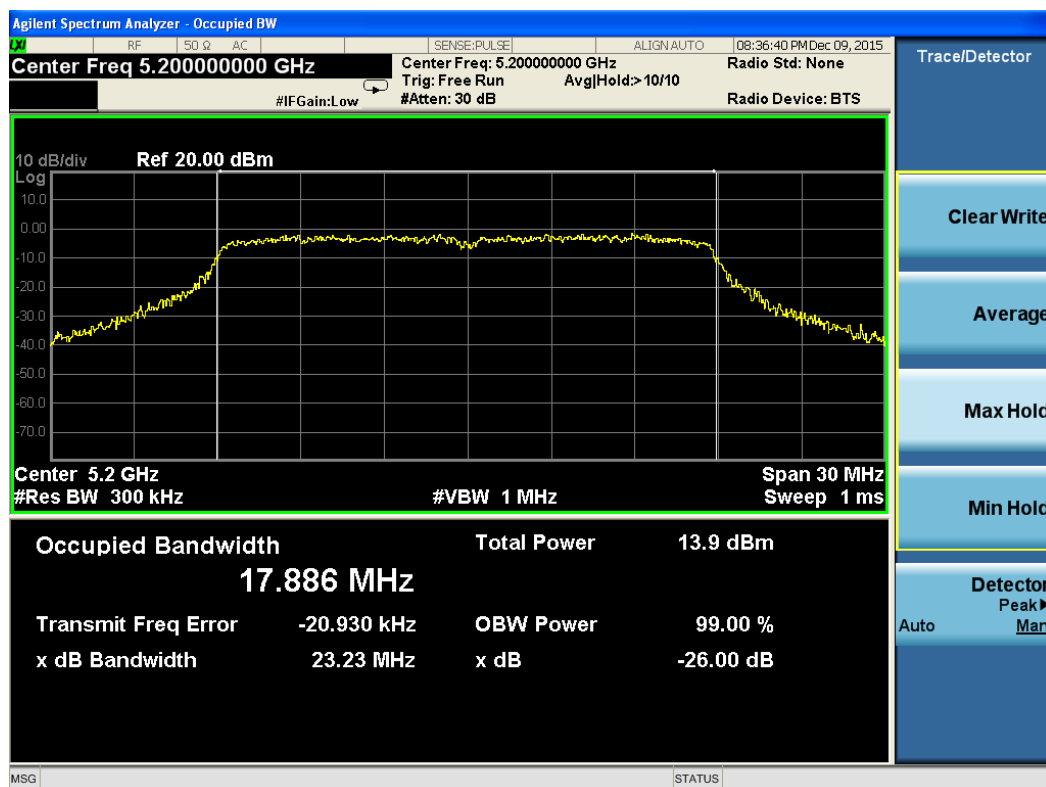
Test Plot For 802.11n(HT20)-26dB BW-5180M-Chain 3



Test Plot For 802.11n(HT20)-26dB BW-5200M-Chain 0



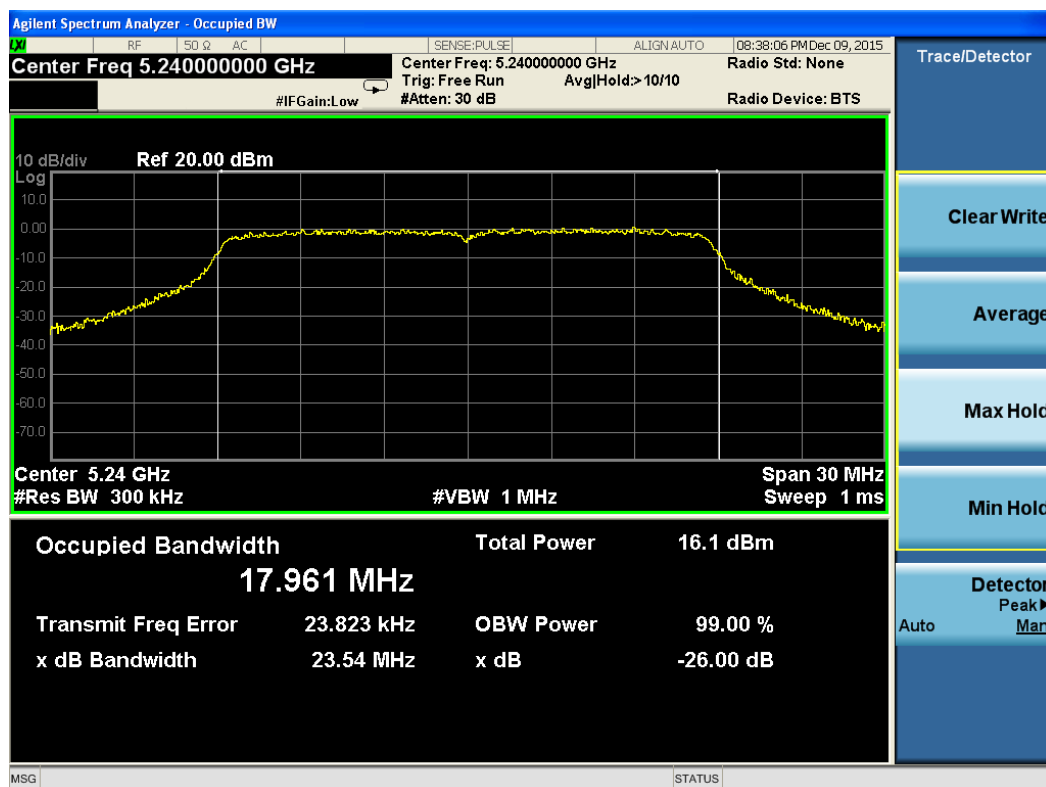
Test Plot For 802.11n(HT20)-26dB BW-5200M-Chain 1



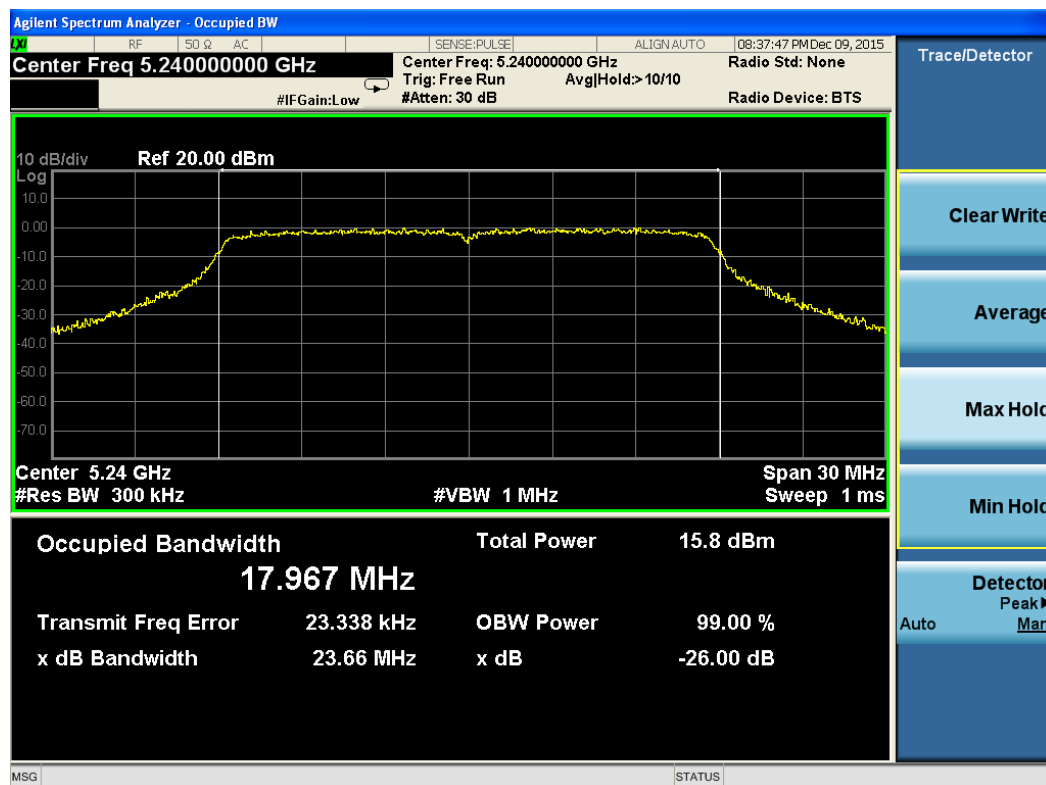
Test Plot For 802.11n(HT20)-26dB BW-5200M-Chain 2



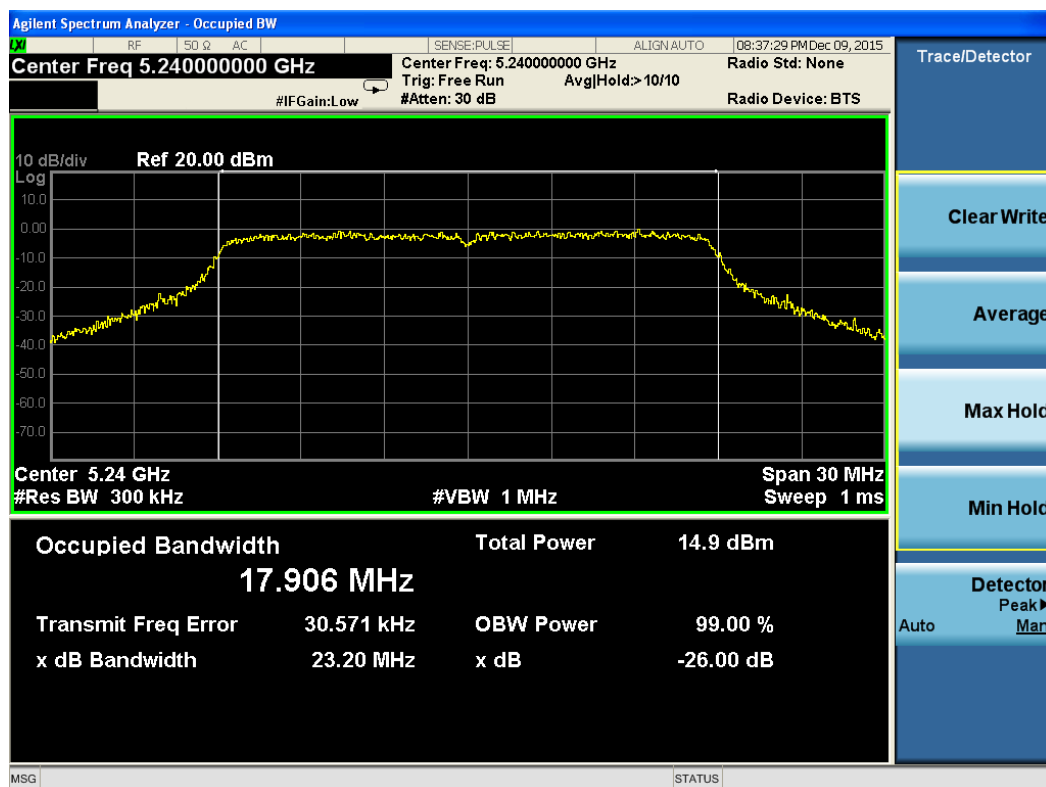
Test Plot For 802.11n(HT20)-26dB BW-5200M-Chain 3



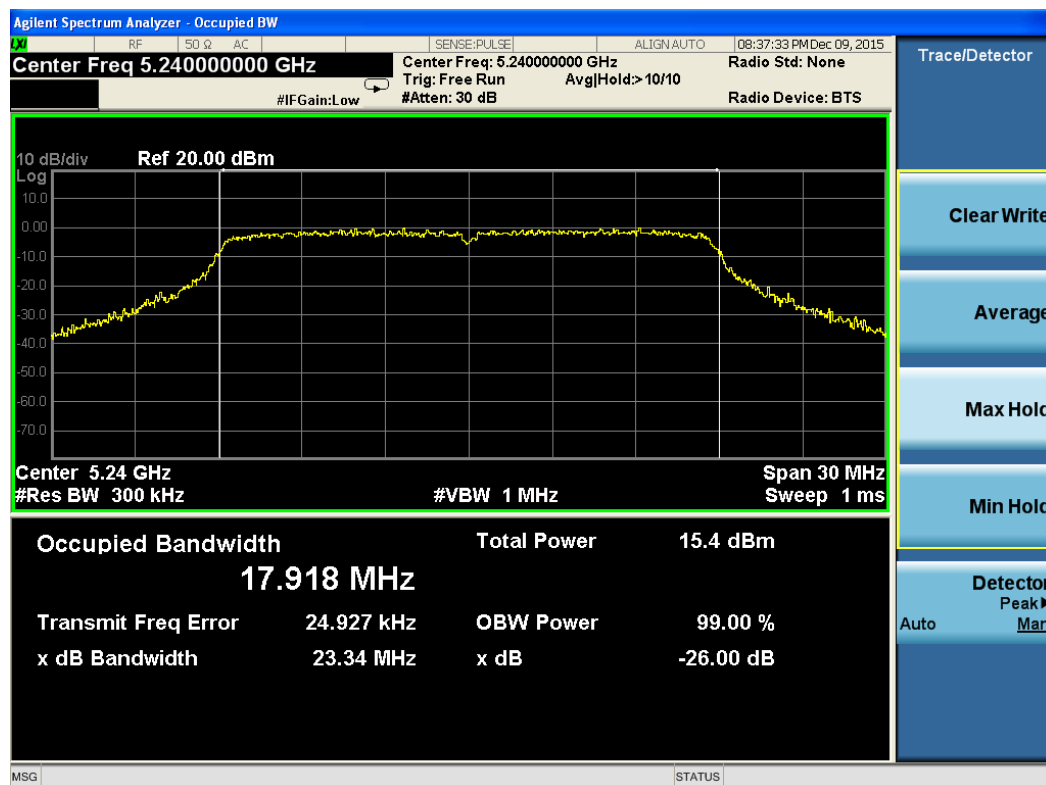
Test Plot For 802.11n(HT20)-26dB BW-5240M-Chain 0



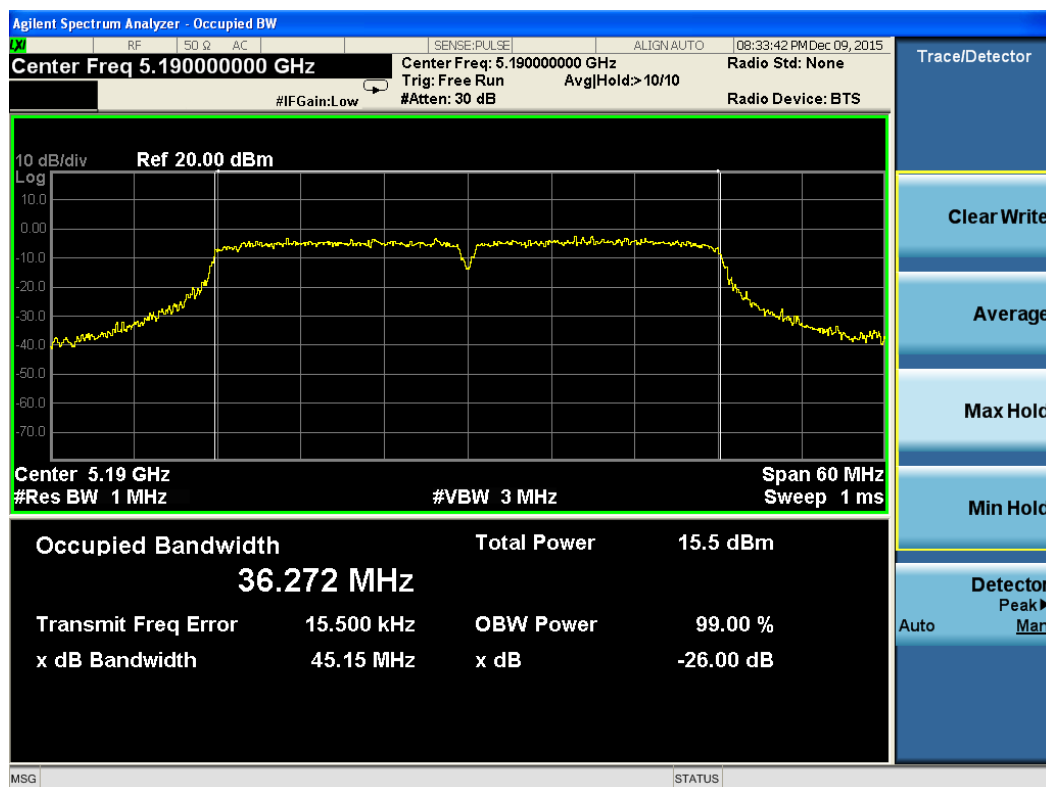
Test Plot For 802.11n(HT20)-26dB BW-5240M-Chain 1



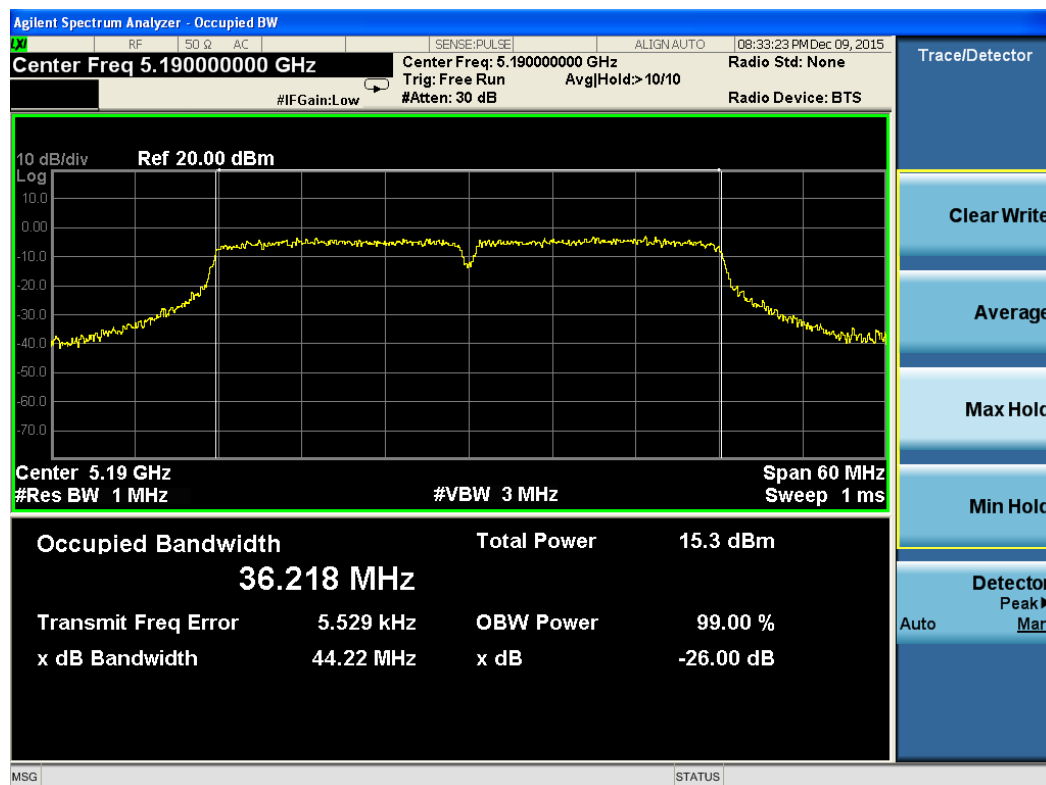
Test Plot For 802.11n(HT20)-26dB BW-5240M-Chain 2



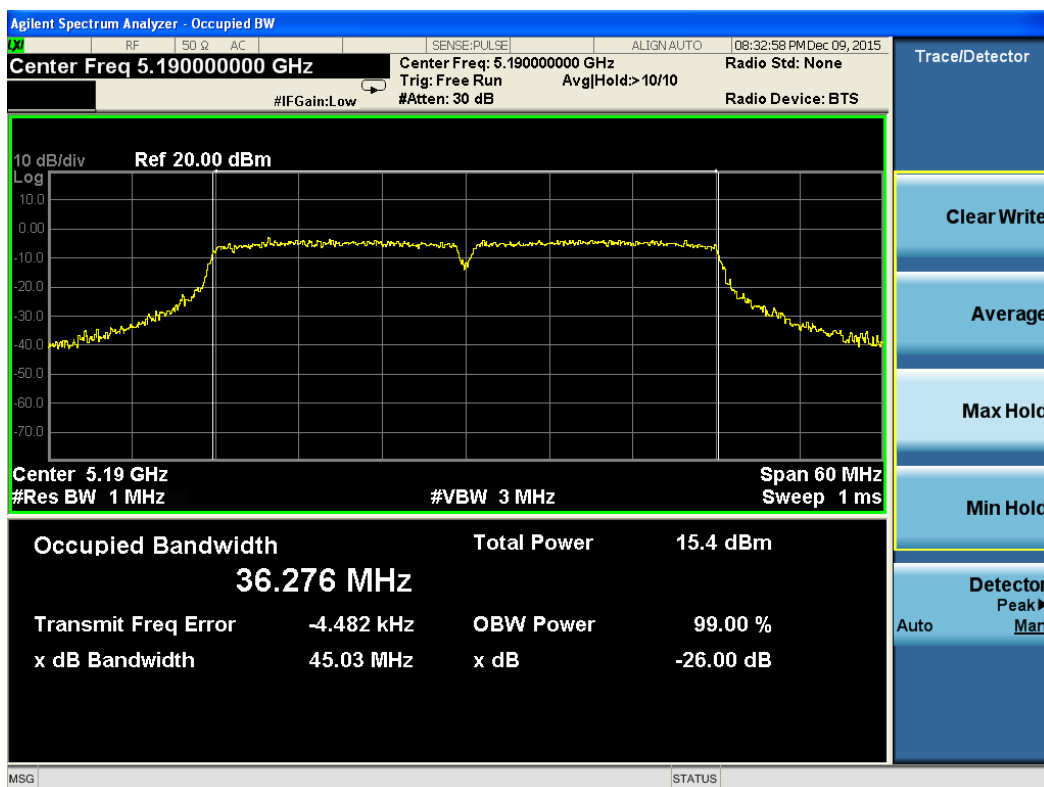
Test Plot For 802.11n(HT20)-26dB BW-5240M-Chain 3



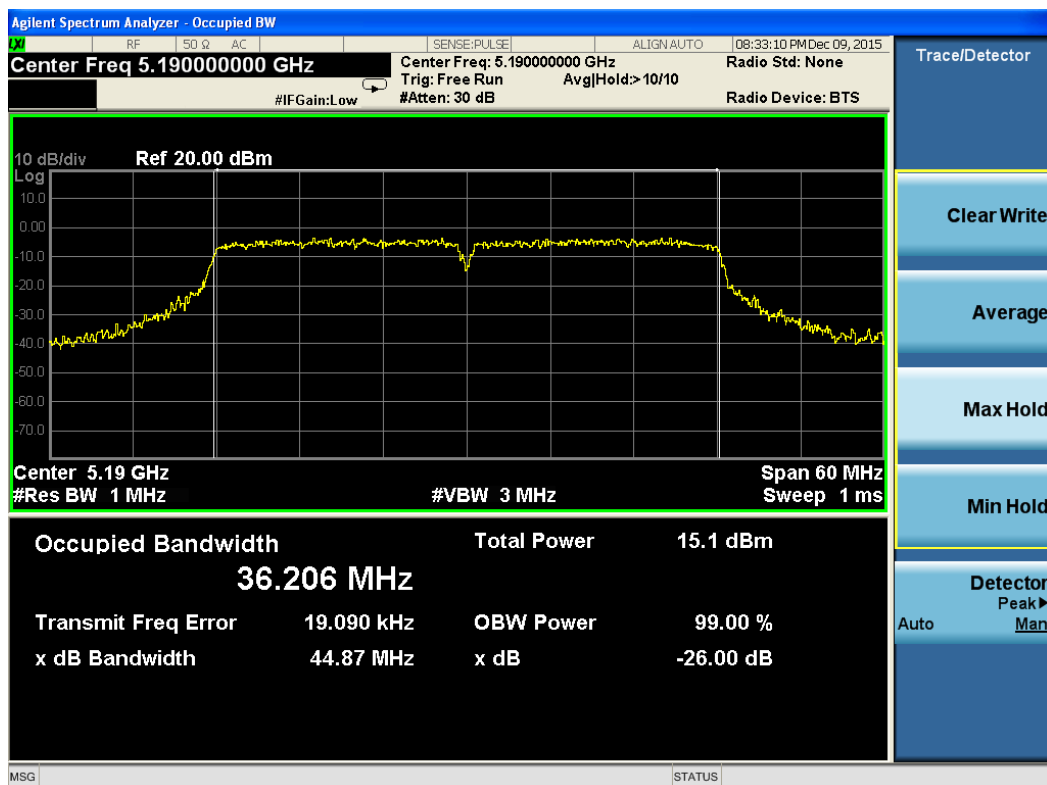
Test Plot For 802.11n(HT40)-26dB BW-5190M-Chain 0



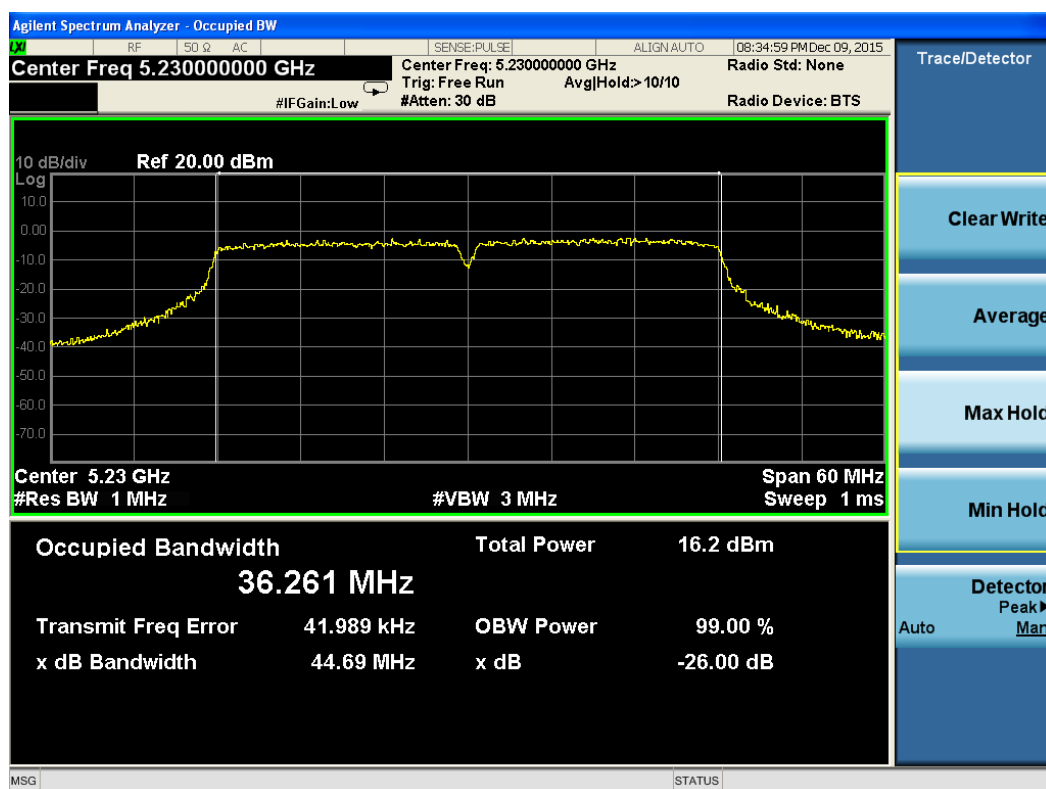
Test Plot For 802.11n(HT40)-26dB BW-5190M-Chain 1



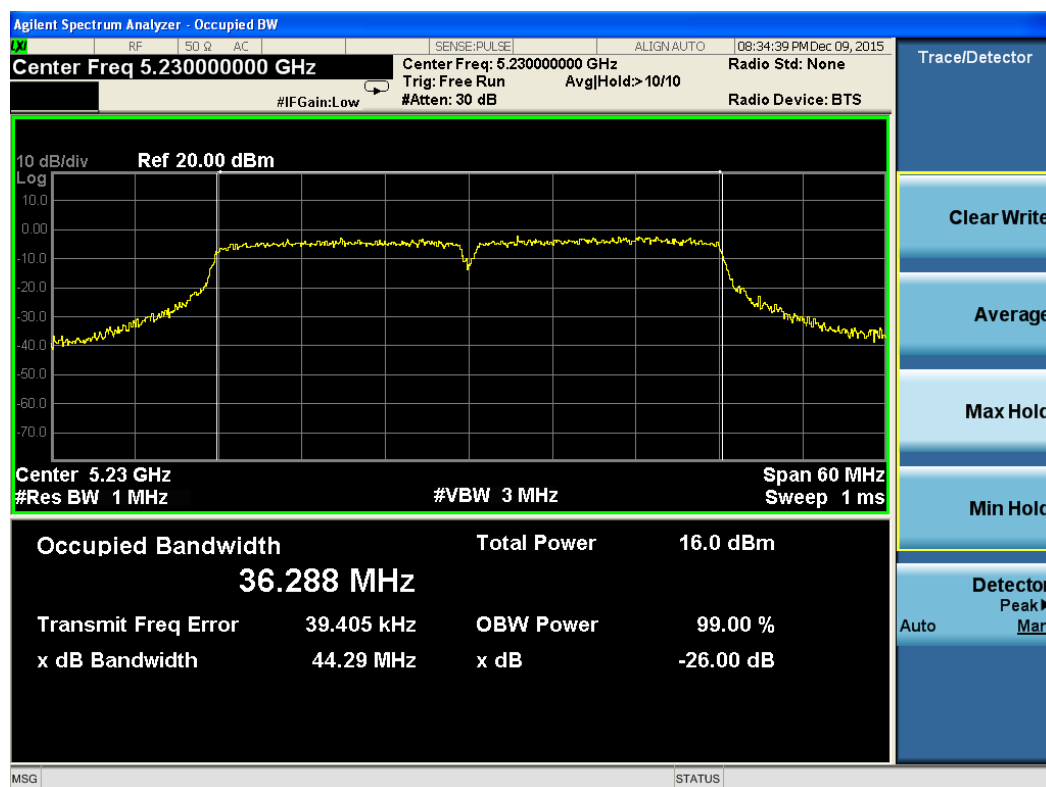
Test Plot For 802.11n(HT40)-26dB BW-5190M-Chain 2



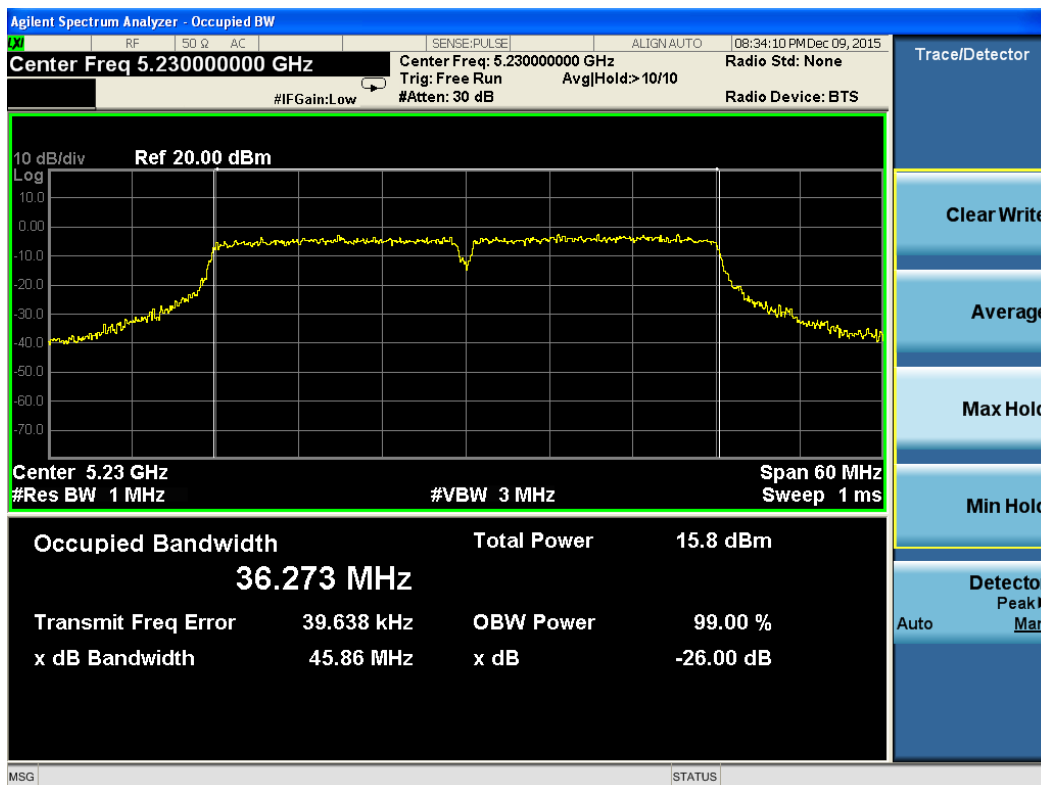
Test Plot For 802.11n(HT40)-26dB BW-5190M-Chain 3



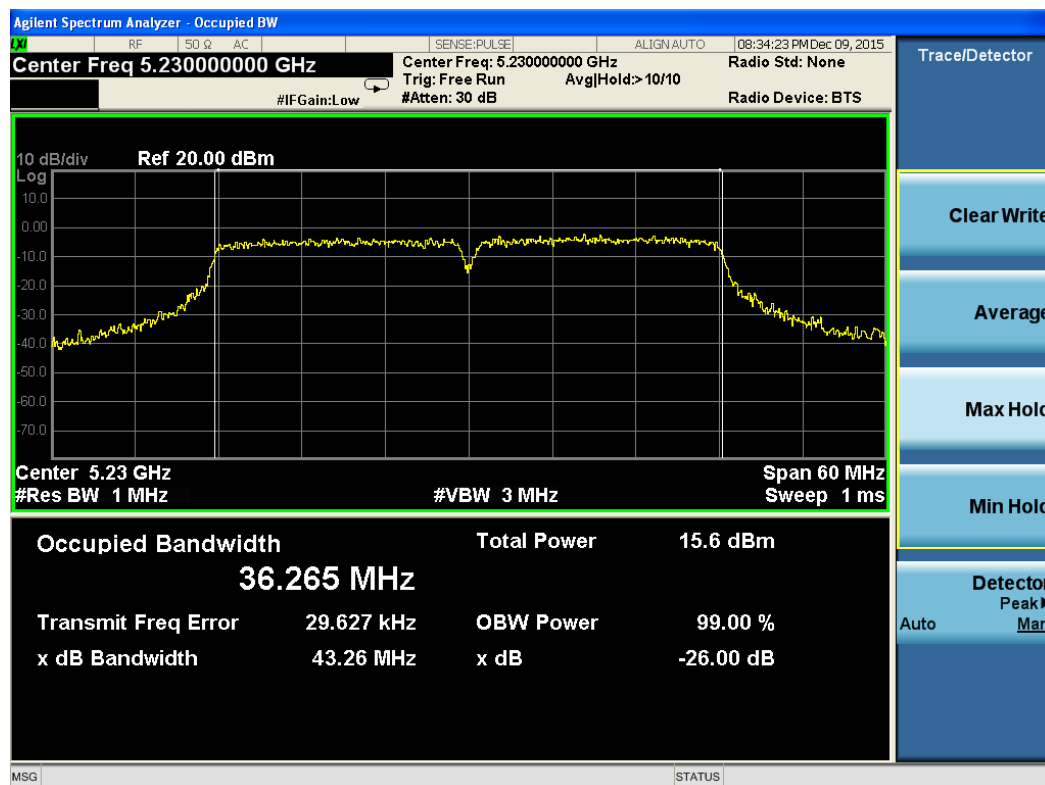
Test Plot For 802.11n(HT40)-26dB BW-5230M-Chain 0



Test Plot For 802.11n(HT40)-26dB BW-5230M-Chain 1



Test Plot For 802.11n(HT40)-26dB BW-5230M-Chain 2



Test Plot For 802.11n(HT40)-26dB BW-5230M-Chain 3

5.4. Radiated Emissions Measurement

5.4.1. Standard Applicable

According to §15.407 (b)(1) to (6):

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz (68.3dBuV/m at 3m).

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz (78.3dBuV/m at 3m); for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz (68.3dBuV/m at 3m).

In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies(MHz)	Field Strength(microvolts/meter)	Measurement Distance(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

5.4.2. Instruments Setting

The following table is the setting of spectrum analyzer and receiver.

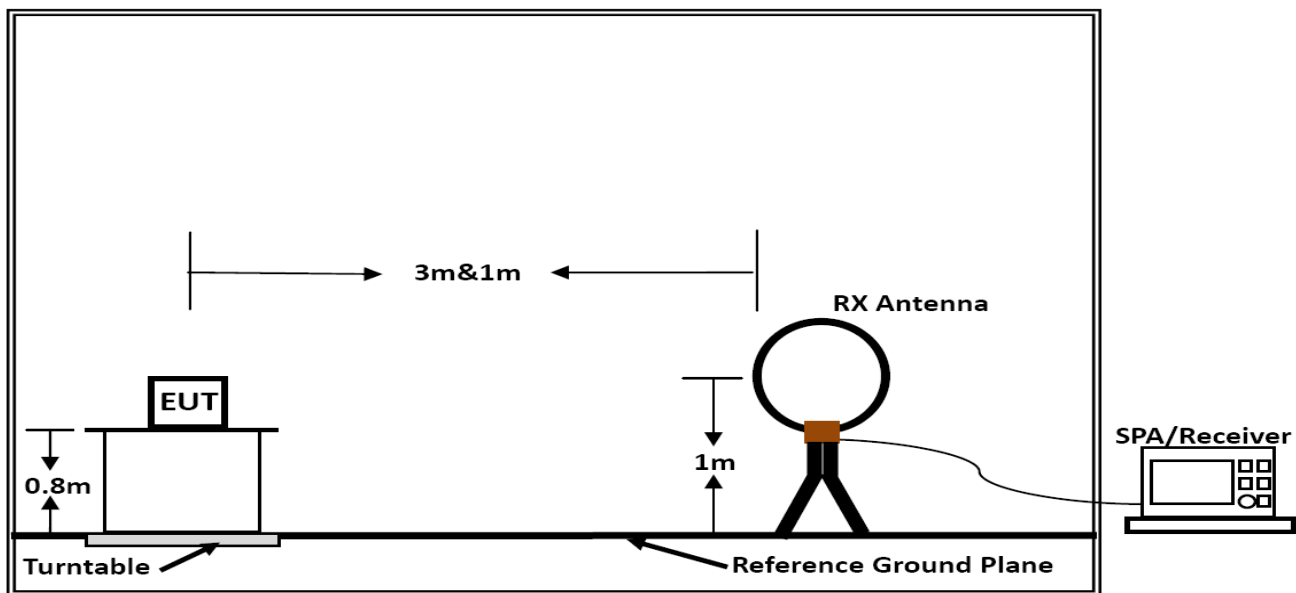
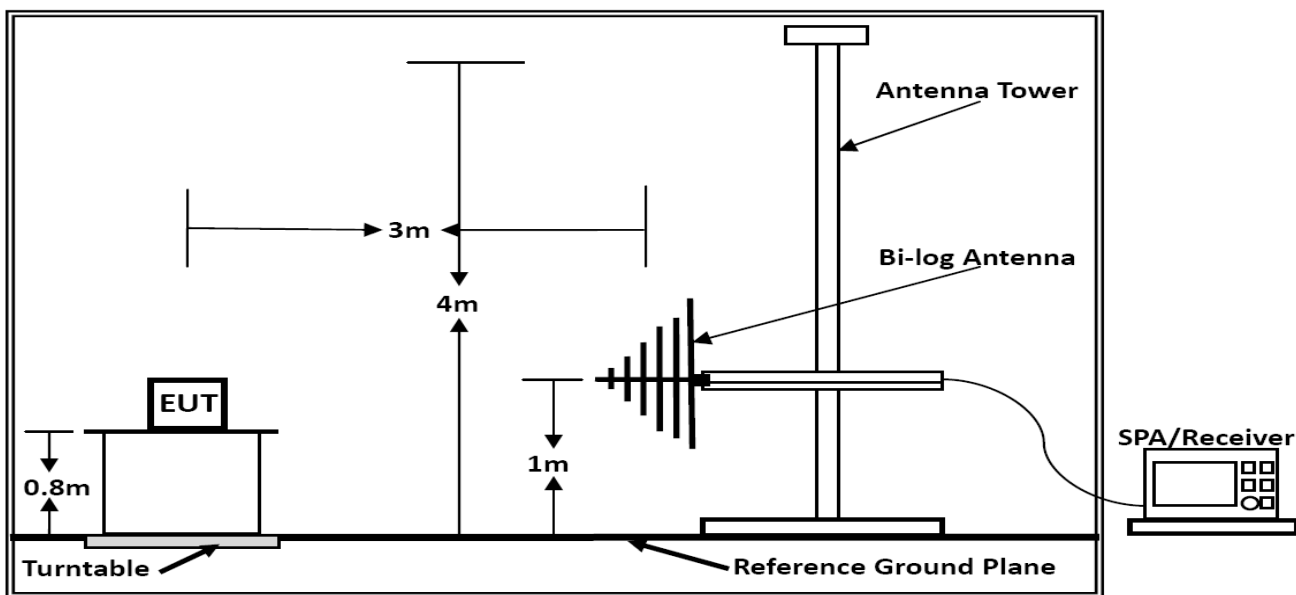
Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

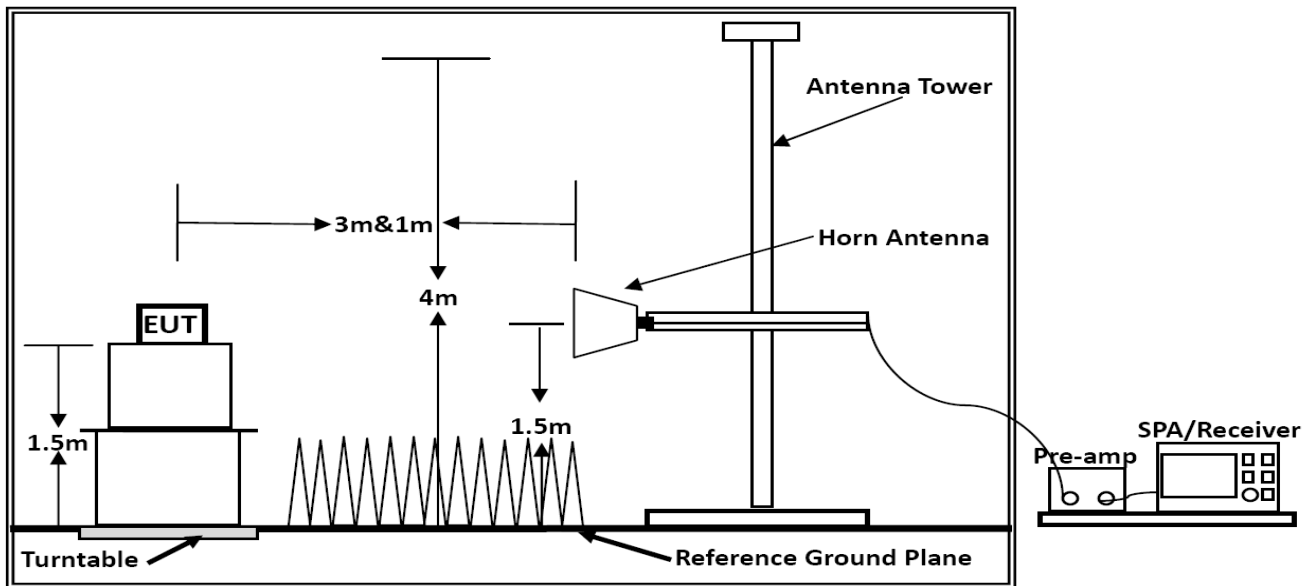
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 100kHz for QP

5.4.3. Test Procedures

- 1) Configure the EUT according to ANSI C63.10: 2013. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2) Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3) The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4) For each suspected emissions, the antenna tower was scan (from 1 m to 4 m) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading
- 5) Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6) For emissions above 1GHz, use 1MHz VBW and RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7) When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
- 8) If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9) For the radiated emission test above 1GHz: Place the measurement antenna away from each area of the EUT determined to be a source of emission sat the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. The emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10) In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

5.4.4. Test Setup Layout

**Below 30MHz****Below 1GHz**



Above 1GHz

Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1.5m.

Distance extrapolation factor = $20 \log (\text{specific distance [3m]} / \text{test distance [1.5m]})$ (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

5.4.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

5.4.6. Results of Radiated Emissions (9kHz~30MHz)

Temperature	25°C	Humidity	60%
Test Engineer	Kyle	Configurations	802.11a/n

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Over Limit (dBuV)	Remark
-	-	-	-	See Note

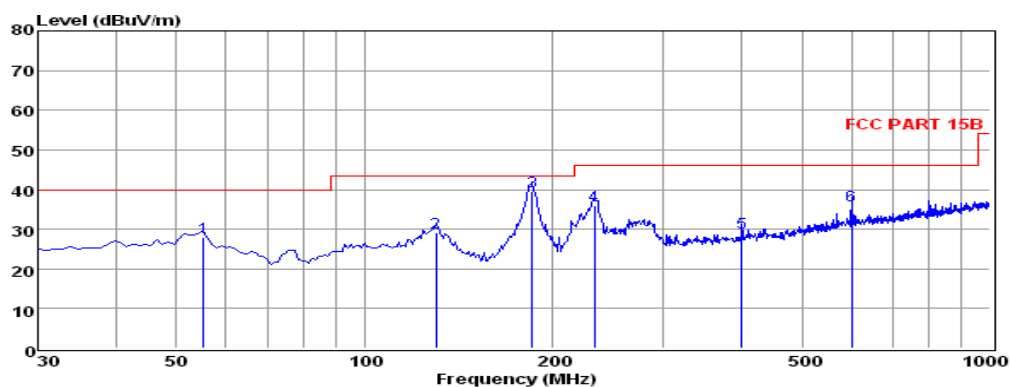
Note:

The radiated emissions from 9kHz to 30MHz are at least 20dB below the official limit and no need to report.

5.4.7. Results of Radiated Emissions (30MHz~1GHz)

Note: Only record the worst test result in this report.

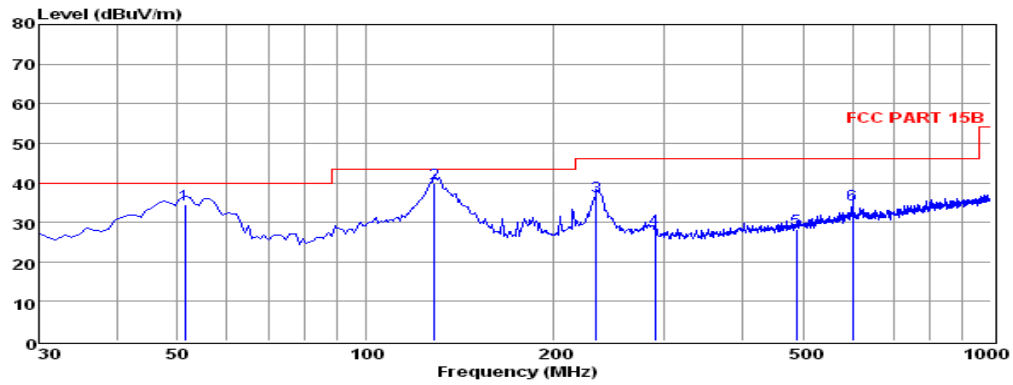
The Test Result (Input AC 120V/60Hz):



Env./Ins: 24°C/56%
 EUT: TETRA
 M/N: MK5.8
 Power Rating: AC 120V/60Hz
 Test Mode: TX-11N20 (Chain 0+ Chain 1, 5180MHz)
 Operator: KYLE
 Memo:
 pol: HORIZONTAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	55.22	14.35	0.46	13.01	27.82	40.00	-12.18	QP
2	129.91	19.37	0.76	8.94	29.07	43.50	-14.43	QP
3	185.20	28.71	0.70	10.14	39.55	43.50	-3.95	QP
4	232.73	23.10	0.98	11.77	35.85	46.00	-10.15	QP
5	400.54	12.87	1.20	15.07	29.14	46.00	-16.86	QP
6	600.36	16.09	1.43	18.45	35.97	46.00	-10.03	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20dB below the official limit are not reported

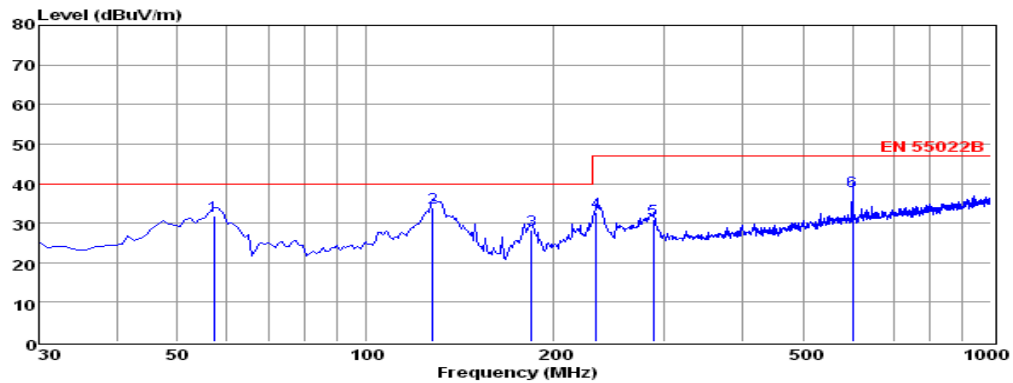


Env./Ins: 24°C/56%
 EUT: TETRA
 M/N: MK5.8
 Power Rating: AC 120V/60Hz
 Test Mode: TX-11N20 (Chain 0+ Chain 1, 5180MHz)
 Operator: KYLE
 Memo:
 pol: VERTICAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	51.34	20.87	0.54	13.19	34.60	40.00	-5.40	QP
2	128.94	30.17	0.67	9.09	39.93	43.50	-3.57	QP
3	233.70	23.82	0.87	11.81	36.50	46.00	-9.50	QP
4	289.96	14.30	1.01	12.86	28.17	46.00	-17.83	QP
5	488.81	10.72	1.37	16.29	28.38	46.00	-17.62	QP
6	600.36	14.60	1.43	18.45	34.48	46.00	-11.52	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported

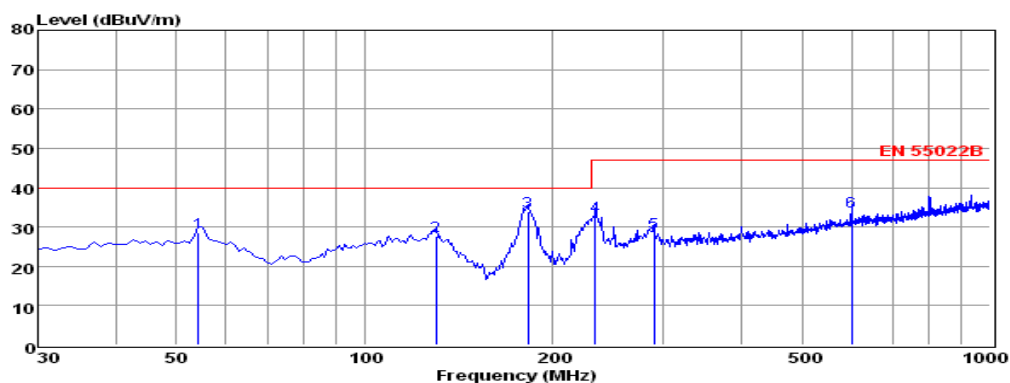
The Test Result (Input AC 240V/60Hz):



Env./Ins: 24°C/56%
 EUT: TETRA
 M/N: MK5.8
 Power Rating: AC 240V/60Hz
 Test Mode: TX-11N20 (Chain 0+ Chain 1, 5180MHz)
 Operator: KYLE
 Memo:
 pol: VERTICAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	57.16	18.59	0.47	12.88	31.94	40.00	-8.06	QP
2	127.97	23.98	0.67	9.24	33.89	40.00	-6.11	QP
3	184.23	17.43	0.70	10.05	28.18	40.00	-11.82	QP
4	233.70	20.15	0.87	11.81	32.83	47.00	-14.17	QP
5	288.02	16.97	1.05	12.83	30.85	47.00	-16.15	QP
6	600.36	18.32	1.43	18.45	38.20	47.00	-8.80	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that are 20db below the official limit are not reported



Env./Ins: 24 °C / 56%
 EUT: TETRA
 M/N: MK5.8
 Power Rating: AC 240V/60Hz
 Test Mode: TX-11N20 (Chain 0+ Chain 1, 5180MHz)
 Operator: KYLE
 Memo:
 pol: HORIZONTAL

	Freq	Reading	CabLos	Antfac	Measured	Limit	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	54.25	14.95	0.46	13.05	28.46	40.00	-11.54	QP
2	129.91	17.91	0.76	8.94	27.61	40.00	-12.39	QP
3	182.29	23.03	0.89	9.88	33.80	40.00	-6.20	QP
4	233.70	20.12	0.87	11.81	32.80	47.00	-14.20	QP
5	289.96	14.63	1.01	12.86	28.50	47.00	-18.50	QP
6	600.36	13.93	1.43	18.45	33.81	47.00	-13.19	QP

Note: 1. All readings are Quasi-peak values.
 2. Measured= Reading + Antenna Factor + Cable Loss
 3. The emission that ate 20db blow the official limit are not reported

***Note:

Pre-scan all mode and recorded the worst case results in this report (802.11n(HT20) mode(Low Channel, Chain 0 + Chain 1, 5180-5240MHz Band)).

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Only recorded the worst test case in this report.

5.4.8. Results for Radiated Emissions (Above 1GHz)

Note: Only recorded the worst test result in this report.

The Worst Test Result For 5180~5240MHz Band.

802.11a / Channel 36 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.54	45.90	33.21	35.82	9.52	52.81	74	-21.19	Peak	Horizontal
15.54	34.64	33.21	35.82	9.52	41.55	54	-12.45	Average	Horizontal
15.54	46.29	32.82	35.82	9.52	52.81	74	-21.19	Peak	Vertical
15.54	35.20	32.82	35.82	9.52	41.72	54	-12.28	Average	Vertical

802.11a / Channel 36 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.54	45.24	33.21	35.82	9.52	52.15	74	-21.85	Peak	Horizontal
15.54	34.20	33.21	35.82	9.52	41.11	54	-12.89	Average	Horizontal
15.54	46.13	32.82	35.82	9.52	52.65	74	-21.35	Peak	Vertical
15.54	35.42	32.82	35.82	9.52	41.94	54	-12.06	Average	Vertical

802.11a / Channel 40 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.60	46.79	33.21	35.82	9.52	53.70	74	-20.30	Peak	Horizontal
15.60	34.77	33.21	35.82	9.52	41.68	54	-12.32	Average	Horizontal
15.60	46.59	32.82	35.82	9.52	53.11	74	-20.89	Peak	Vertical
15.60	35.31	32.82	35.82	9.52	41.83	54	-12.17	Average	Vertical

802.11a / Channel 40 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.60	46.79	33.21	35.82	9.52	53.70	74	-20.30	Peak	Horizontal
15.60	35.36	33.21	35.82	9.52	42.27	54	-11.73	Average	Horizontal
15.60	46.67	32.82	35.82	9.52	53.19	74	-20.81	Peak	Vertical
15.60	35.17	32.82	35.82	9.52	41.69	54	-12.31	Average	Vertical

802.11a / Channel 48 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.72	47.00	33.21	35.82	9.52	53.91	74	-20.09	Peak	Horizontal
15.72	35.25	33.21	35.82	9.52	42.16	54	-11.84	Average	Horizontal
15.72	47.93	32.82	35.82	9.52	54.45	74	-19.55	Peak	Vertical
15.72	36.12	32.82	35.82	9.52	42.64	54	-11.36	Average	Vertical

802.11a / Channel 48 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.72	47.26	33.21	35.82	9.52	54.17	74	-19.83	Peak	Horizontal
15.72	35.69	33.21	35.82	9.52	42.60	54	-11.40	Average	Horizontal
15.72	47.62	32.82	35.82	9.52	54.14	74	-19.86	Peak	Vertical
15.72	35.91	32.82	35.82	9.52	42.43	54	-11.57	Average	Vertical

802.11n(HT20) / Channel 36 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.54	45.84	33.21	35.82	9.52	52.75	74	-21.25	Peak	Horizontal
15.54	34.49	33.21	35.82	9.52	41.40	54	-12.60	Average	Horizontal
15.54	46.67	32.82	35.82	9.52	53.19	74	-20.81	Peak	Vertical
15.54	34.82	32.82	35.82	9.52	41.34	54	-12.66	Average	Vertical

802.11n(HT20) / Channel 36 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.54	45.41	33.21	35.82	9.52	52.32	74	-21.68	Peak	Horizontal
15.54	34.27	33.21	35.82	9.52	41.18	54	-12.82	Average	Horizontal
15.54	46.50	32.82	35.82	9.52	53.02	74	-20.98	Peak	Vertical
15.54	34.81	32.82	35.82	9.52	41.33	54	-12.67	Average	Vertical

802.11n(HT20) / Channel 40 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.60	45.06	33.21	35.82	9.52	51.97	74	-22.03	Peak	Horizontal
15.60	35.25	33.21	35.82	9.52	42.16	54	-11.84	Average	Horizontal
15.60	46.61	32.82	35.82	9.52	53.13	74	-20.87	Peak	Vertical
15.60	34.97	32.82	35.82	9.52	41.49	54	-12.51	Average	Vertical

802.11n(HT20) / Channel 40 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.60	46.73	33.21	35.82	9.52	53.64	74	-20.36	Peak	Horizontal
15.60	35.17	33.21	35.82	9.52	42.08	54	-11.92	Average	Horizontal
15.60	46.35	32.82	35.82	9.52	52.87	74	-21.13	Peak	Vertical
15.60	35.07	32.82	35.82	9.52	41.59	54	-12.41	Average	Vertical

802.11n(HT20) / Channel 48 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.72	45.83	33.21	35.82	9.52	52.74	74	-21.26	Peak	Horizontal
15.72	35.82	33.21	35.82	9.52	42.73	54	-11.27	Average	Horizontal
15.72	46.92	32.82	35.82	9.52	53.44	74	-20.56	Peak	Vertical
15.72	35.83	32.82	35.82	9.52	42.35	54	-11.65	Average	Vertical

802.11n(HT20) / Channel 48 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.72	46.32	33.21	35.82	9.52	53.23	74	-20.77	Peak	Horizontal
15.72	35.36	33.21	35.82	9.52	42.27	54	-11.73	Average	Horizontal
15.72	47.57	32.82	35.82	9.52	54.09	74	-19.91	Peak	Vertical
15.72	36.12	32.82	35.82	9.52	42.64	54	-11.36	Average	Vertical

802.11n(HT40) / Channel 38 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.57	45.83	33.21	35.82	9.52	52.74	74	-21.26	Peak	Horizontal
15.57	35.27	33.21	35.82	9.52	42.18	54	-11.82	Average	Horizontal
15.57	46.94	32.82	35.82	9.52	53.46	74	-20.54	Peak	Vertical
15.57	35.90	32.82	35.82	9.52	42.42	54	-11.58	Average	Vertical

802.11n(HT40) / Channel 38 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.57	45.17	33.21	35.82	9.52	52.08	74	-21.92	Peak	Horizontal
15.57	35.05	33.21	35.82	9.52	41.96	54	-12.04	Average	Horizontal
15.57	47.20	32.82	35.82	9.52	53.72	74	-20.28	Peak	Vertical
15.57	35.17	32.82	35.82	9.52	41.69	54	-12.31	Average	Vertical

802.11n(HT40) / Channel 46 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.69	46.56	33.21	35.82	9.52	53.47	74	-20.53	Peak	Horizontal
15.69	35.60	33.21	35.82	9.52	42.51	54	-11.49	Average	Horizontal
15.69	47.52	32.82	35.82	9.52	54.04	74	-19.96	Peak	Vertical
15.69	35.73	32.82	35.82	9.52	42.25	54	-11.75	Average	Vertical

802.11n(HT40) / Channel 46 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
15.69	45.81	33.21	35.82	9.52	52.72	74	-21.28	Peak	Horizontal
15.69	35.43	33.21	35.82	9.52	42.34	54	-11.66	Average	Horizontal
15.69	47.42	32.82	35.82	9.52	53.94	74	-20.06	Peak	Vertical
15.69	35.79	32.82	35.82	9.52	42.31	54	-11.69	Average	Vertical

Notes:

1. *Measuring frequencies from 9k~40GHz, No emission found between lowest internal used/generated frequency to 30MHz.*
2. *Radiated emissions measured in frequency range from 30MHz~40GH were made with an instrument using Peak detector mode.*
3. *The radiated emissions from 18GHz to 40GHz are at least 20dB below the official limit and no need to report.*

The Worst Test Result For 5745~5825MHz Band.

802.11a / Channel 149 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.235	49.56	33.92	36.09	10.26	57.65	74	-16.35	Peak	Horizontal
17.235	39.25	33.92	36.09	10.26	47.34	54	-6.66	Average	Horizontal
17.235	51.06	33.99	35.99	10.26	59.32	74	-14.68	Peak	Vertical
17.235	39.91	33.99	35.99	10.26	48.17	54	-5.83	Average	Vertical

802.11a / Channel 149 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.235	50.96	33.92	36.09	10.26	59.05	74	-14.95	Peak	Horizontal
17.235	39.46	33.92	36.09	10.26	47.55	54	-6.45	Average	Horizontal
17.235	51.01	33.99	35.99	10.26	59.27	74	-14.73	Peak	Vertical
17.235	39.83	33.99	35.99	10.26	48.09	54	-5.91	Average	Vertical

802.11a / Channel 157 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.355	51.13	33.92	36.09	10.26	59.22	74	-14.78	Peak	Horizontal
17.355	39.31	33.92	36.09	10.26	47.40	54	-6.60	Average	Horizontal
17.355	51.38	33.99	35.99	10.26	59.64	74	-14.36	Peak	Vertical
17.355	39.74	33.99	35.99	10.26	48.00	54	-6.00	Average	Vertical

802.11a / Channel 157 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.355	50.14	33.92	36.09	10.26	58.23	74	-15.77	Peak	Horizontal
17.355	39.44	33.92	36.09	10.26	47.53	54	-6.47	Average	Horizontal
17.355	51.20	33.99	35.99	10.26	59.46	74	-14.54	Peak	Vertical
17.355	39.88	33.99	35.99	10.26	48.14	54	-5.86	Average	Vertical

802.11a / Channel 165 / Chain 0

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.475	50.51	33.92	36.09	10.26	58.60	74	-15.40	Peak	Horizontal
17.475	39.66	33.92	36.09	10.26	47.75	54	-6.25	Average	Horizontal
17.475	51.92	33.99	35.99	10.26	60.18	74	-13.82	Peak	Vertical
17.475	39.78	33.99	35.99	10.26	48.04	54	-5.96	Average	Vertical

802.11a / Channel 165 / Chain 2

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.475	50.89	33.92	36.09	10.26	58.98	74	-15.02	Peak	Horizontal
17.475	39.71	33.92	36.09	10.26	47.80	54	-6.20	Average	Horizontal
17.475	51.89	33.99	35.99	10.26	60.15	74	-13.85	Peak	Vertical
17.475	40.23	33.99	35.99	10.26	48.49	54	-5.51	Average	Vertical

802.11n(HT20) / Channel 149 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.235	50.84	33.92	36.09	10.26	58.93	74	-15.07	Peak	Horizontal
17.235	39.16	33.92	36.09	10.26	47.25	54	-6.75	Average	Horizontal
17.235	51.35	33.99	35.99	10.26	59.61	74	-14.39	Peak	Vertical
17.235	39.57	33.99	35.99	10.26	47.83	54	-6.17	Average	Vertical

802.11n(HT20) / Channel 149 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.235	49.99	33.92	36.09	10.26	58.08	74	-15.92	Peak	Horizontal
17.235	39.88	33.92	36.09	10.26	47.97	54	-6.03	Average	Horizontal
17.235	51.68	33.99	35.99	10.26	59.94	74	-14.06	Peak	Vertical
17.235	40.06	33.99	35.99	10.26	48.32	54	-5.68	Average	Vertical

802.11n(HT20) / Channel 157 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.355	48.81	33.92	36.09	10.26	56.90	74	-17.10	Peak	Horizontal
17.355	39.28	33.92	36.09	10.26	47.37	54	-6.63	Average	Horizontal
17.355	51.14	33.99	35.99	10.26	59.40	74	-14.60	Peak	Vertical
17.355	39.90	33.99	35.99	10.26	48.16	54	-5.84	Average	Vertical

802.11n(HT20) / Channel 157 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.355	49.17	33.92	36.09	10.26	57.26	74	-16.74	Peak	Horizontal
17.355	38.93	33.92	36.09	10.26	47.02	54	-6.98	Average	Horizontal
17.355	51.22	33.99	35.99	10.26	59.48	74	-14.52	Peak	Vertical
17.355	39.52	33.99	35.99	10.26	47.78	54	-6.22	Average	Vertical

802.11n(HT20) / Channel 165 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.475	50.19	33.92	36.09	10.26	58.28	74	-15.72	Peak	Horizontal
17.475	39.17	33.92	36.09	10.26	47.26	54	-6.74	Average	Horizontal
17.475	50.53	33.99	35.99	10.26	58.79	74	-15.21	Peak	Vertical
17.475	39.88	33.99	35.99	10.26	48.14	54	-5.86	Average	Vertical

802.11n(HT20) / Channel 165 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.475	49.93	33.92	36.09	10.26	58.02	74	-15.98	Peak	Horizontal
17.475	39.58	33.92	36.09	10.26	47.67	54	-6.33	Average	Horizontal
17.475	50.68	33.99	35.99	10.26	58.94	74	-15.06	Peak	Vertical
17.475	39.35	33.99	35.99	10.26	47.61	54	-6.39	Average	Vertical

802.11n(HT40) / Channel 151 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.265	50.65	33.92	36.09	10.26	58.74	74	-15.26	Peak	Horizontal
17.265	38.88	33.92	36.09	10.26	46.97	54	-7.03	Average	Horizontal
17.265	50.24	33.99	35.99	10.26	58.50	74	-15.50	Peak	Vertical
17.265	39.72	33.99	35.99	10.26	47.98	54	-6.02	Average	Vertical

802.11n(HT40) / Channel 151 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.265	50.58	33.92	36.09	10.26	58.67	74	-15.33	Peak	Horizontal
17.265	39.33	33.92	36.09	10.26	47.42	54	-6.58	Average	Horizontal
17.265	50.81	33.99	35.99	10.26	59.07	74	-14.93	Peak	Vertical
17.265	39.21	33.99	35.99	10.26	47.47	54	-6.53	Average	Vertical

802.11n(HT40) / Channel 159 / Chain 0 + Chain 1

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.385	48.58	33.92	36.09	10.26	56.67	74	-17.33	Peak	Horizontal
17.385	38.72	33.92	36.09	10.26	46.81	54	-7.19	Average	Horizontal
17.385	50.15	33.99	35.99	10.26	58.41	74	-15.59	Peak	Vertical
17.385	39.45	33.99	35.99	10.26	47.71	54	-6.29	Average	Vertical

802.11n(HT40) / Channel 159 / Chain 2 + Chain 3

Freq. GHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
17.385	50.28	33.92	36.09	10.26	58.37	74	-15.63	Peak	Horizontal
17.385	38.57	33.92	36.09	10.26	46.66	54	-7.34	Average	Horizontal
17.385	50.71	33.99	35.99	10.26	58.97	74	-15.03	Peak	Vertical
17.385	39.29	33.99	35.99	10.26	47.55	54	-6.45	Average	Vertical

Notes:

1. Measuring frequencies from 9k~40GHz, No emission found between lowest internal used/generated frequency to 30MHz.
2. Radiated emissions measured in frequency range from 30MHz~40GH were made with an instrument using Peak detector mode.
3. The radiated emissions from 18GHz to 40GHz are at least 20dB below the official limit and no need to report.

5.4.9. Results of Band Edges Test (Radiated)

Note: Only recorded the worst test result in this report.

The Worst Test Result For 5180~5240MHz Band.

802.11a / Channel 36 / Chain 0

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	47.93	33.79	36.42	7.80	53.10	74	-20.90	Peak	Horizontal
5150.00	38.84	33.79	36.42	7.80	44.01	54	-9.99	Average	Horizontal
5150.00	49.81	34.24	36.42	7.80	55.43	74	-18.57	Peak	Vertical
5150.00	39.03	34.24	36.42	7.80	44.65	54	-9.35	Average	Vertical

802.11a / Channel 36 / Chain 2

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	48.12	33.79	36.42	7.80	53.29	74	-20.71	Peak	Horizontal
5150.00	38.07	33.79	36.42	7.80	43.24	54	-10.76	Average	Horizontal
5150.00	49.88	34.24	36.42	7.80	55.50	74	-18.50	Peak	Vertical
5150.00	39.29	34.24	36.42	7.80	44.91	54	-9.09	Average	Vertical

802.11a / Channel 48 / Chain 0

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	49.43	34.66	36.59	7.98	55.48	74	-18.52	Peak	Horizontal
5350.00	39.51	34.66	36.59	7.98	45.56	54	-8.44	Average	Horizontal
5350.00	52.01	34.69	36.59	7.98	58.09	74	-15.91	Peak	Vertical
5350.00	40.89	34.69	36.59	7.98	46.97	54	-7.03	Average	Vertical

802.11a / Channel 48 / Chain 2

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	49.72	34.66	36.59	7.98	55.77	74	-18.23	Peak	Horizontal
5350.00	39.37	34.66	36.59	7.98	45.42	54	-8.58	Average	Horizontal
5350.00	51.88	34.69	36.59	7.98	57.96	74	-16.04	Peak	Vertical
5350.00	41.08	34.69	36.59	7.98	47.16	54	-6.84	Average	Vertical

802.11n(HT20) / Channel 36 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	48.58	33.79	36.42	7.80	53.75	74	-20.25	Peak	Horizontal
5150.00	38.24	33.79	36.42	7.80	43.41	54	-10.59	Average	Horizontal
5150.00	49.58	34.24	36.42	7.80	55.20	74	-18.80	Peak	Vertical
5150.00	39.10	34.24	36.42	7.80	44.72	54	-9.28	Average	Vertical

802.11n(HT20) / Channel 36 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	48.57	33.79	36.42	7.80	53.74	74	-20.26	Peak	Horizontal
5150.00	38.36	33.79	36.42	7.80	43.53	54	-10.47	Average	Horizontal
5150.00	49.82	34.24	36.42	7.80	55.44	74	-18.56	Peak	Vertical
5150.00	38.79	34.24	36.42	7.80	44.41	54	-9.59	Average	Vertical

802.11n(HT20) / Channel 48 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	49.16	34.66	36.59	7.98	55.21	74	-18.79	Peak	Horizontal
5350.00	38.54	34.66	36.59	7.98	44.59	54	-9.41	Average	Horizontal
5350.00	51.36	34.69	36.59	7.98	57.44	74	-16.56	Peak	Vertical
5350.00	40.86	34.69	36.59	7.98	46.94	54	-7.06	Average	Vertical

802.11n(HT20) / Channel 48 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	49.56	34.66	36.59	7.98	55.61	74	-18.39	Peak	Horizontal
5350.00	38.66	34.66	36.59	7.98	44.71	54	-9.29	Average	Horizontal
5350.00	50.78	34.69	36.59	7.98	56.86	74	-17.14	Peak	Vertical
5350.00	40.67	34.69	36.59	7.98	46.75	54	-7.25	Average	Vertical

802.11n(HT40) / Channel 38 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	48.02	33.79	36.42	7.80	53.19	74	-20.81	Peak	Horizontal
5150.00	37.74	33.79	36.42	7.80	42.91	54	-11.09	Average	Horizontal
5150.00	49.31	34.24	36.42	7.80	54.93	74	-19.07	Peak	Vertical
5150.00	38.54	34.24	36.42	7.80	44.16	54	-9.84	Average	Vertical

802.11n(HT40) / Channel 38 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5150.00	47.48	33.79	36.42	7.80	52.65	74	-21.35	Peak	Horizontal
5150.00	37.76	33.79	36.42	7.80	42.93	54	-11.07	Average	Horizontal
5150.00	49.64	34.24	36.42	7.80	55.26	74	-18.74	Peak	Vertical
5150.00	38.28	34.24	36.42	7.80	43.90	54	-10.10	Average	Vertical

802.11n(HT40) / Channel 46 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	48.62	34.66	36.59	7.98	54.67	74	-19.33	Peak	Horizontal
5350.00	37.97	34.66	36.59	7.98	44.02	54	-9.98	Average	Horizontal
5350.00	50.72	34.69	36.59	7.98	56.80	74	-17.20	Peak	Vertical
5350.00	40.42	34.69	36.59	7.98	46.50	54	-7.50	Average	Vertical

802.11n(HT40) / Channel 46 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5350.00	48.07	34.66	36.59	7.98	54.12	74	-19.88	Peak	Horizontal
5350.00	38.12	34.66	36.59	7.98	44.17	54	-9.83	Average	Horizontal
5350.00	51.14	34.69	36.59	7.98	57.22	74	-16.78	Peak	Vertical
5350.00	40.36	34.69	36.59	7.98	46.44	54	-7.56	Average	Vertical

The Worst Test Result For 5745~5825MHz Band.

802.11a / Channel 149 / Chain 0

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	50.03	34.46	36.75	8.19	55.93	74	-18.07	Peak	Horizontal
5725.00	38.31	34.46	36.75	8.19	44.21	54	-9.79	Average	Horizontal
5725.00	51.10	34.52	36.75	8.19	57.06	74	-16.94	Peak	Vertical
5725.00	39.71	34.52	36.75	8.19	45.67	54	-8.33	Average	Vertical

802.11a / Channel 149 / Chain 2

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	48.98	34.46	36.75	8.19	54.88	74	-19.12	Peak	Horizontal
5725.00	37.96	34.46	36.75	8.19	43.86	54	-10.14	Average	Horizontal
5725.00	50.61	34.52	36.75	8.19	56.57	74	-17.43	Peak	Vertical
5725.00	39.73	34.52	36.75	8.19	45.69	54	-8.31	Average	Vertical

802.11a / Channel 165 / Chain 0

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	50.12	34.82	36.80	8.30	56.44	74	-17.56	Peak	Horizontal
5850.00	39.50	34.82	36.80	8.30	45.82	54	-8.18	Average	Horizontal
5850.00	52.73	34.86	36.80	8.30	59.09	74	-14.91	Peak	Vertical
5850.00	41.30	34.86	36.80	8.30	47.66	54	-6.34	Average	Vertical

802.11a / Channel 165 / Chain 2

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	50.97	34.82	36.80	8.30	57.29	74	-16.71	Peak	Horizontal
5850.00	39.89	34.82	36.80	8.30	46.21	54	-7.79	Average	Horizontal
5850.00	52.13	34.86	36.80	8.30	58.49	74	-15.51	Peak	Vertical
5850.00	41.06	34.86	36.80	8.30	47.42	54	-6.58	Average	Vertical

802.11n(HT20) / Channel 149 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	50.36	34.46	36.75	8.19	56.26	74	-17.74	Peak	Horizontal
5725.00	38.47	34.46	36.75	8.19	44.37	54	-9.63	Average	Horizontal
5725.00	51.24	34.52	36.75	8.19	57.20	74	-16.80	Peak	Vertical
5725.00	39.57	34.52	36.75	8.19	45.53	54	-8.47	Average	Vertical

802.11n(HT20) / Channel 149 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	50.06	34.46	36.75	8.19	55.96	74	-18.04	Peak	Horizontal
5725.00	38.04	34.46	36.75	8.19	43.94	54	-10.06	Average	Horizontal
5725.00	51.08	34.52	36.75	8.19	57.04	74	-16.96	Peak	Vertical
5725.00	39.03	34.52	36.75	8.19	44.99	54	-9.01	Average	Vertical

802.11n(HT20) / Channel 165 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	50.96	34.82	36.80	8.30	57.28	74	-16.72	Peak	Horizontal
5850.00	39.82	34.82	36.80	8.30	46.14	54	-7.86	Average	Horizontal
5850.00	51.97	34.86	36.80	8.30	58.33	74	-15.67	Peak	Vertical
5850.00	41.28	34.86	36.80	8.30	47.64	54	-6.36	Average	Vertical

802.11n(HT20) / Channel 165 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	50.47	34.82	36.80	8.30	56.79	74	-17.21	Peak	Horizontal
5850.00	39.98	34.82	36.80	8.30	46.30	54	-7.70	Average	Horizontal
5850.00	52.28	34.86	36.80	8.30	58.64	74	-15.36	Peak	Vertical
5850.00	41.01	34.86	36.80	8.30	47.37	54	-6.63	Average	Vertical

802.11n(HT40) / Channel 151 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	50.39	34.46	36.75	8.19	56.29	74	-17.71	Peak	Horizontal
5725.00	37.92	34.46	36.75	8.19	43.82	54	-10.18	Average	Horizontal
5725.00	50.77	34.52	36.75	8.19	56.73	74	-17.27	Peak	Vertical
5725.00	39.49	34.52	36.75	8.19	45.45	54	-8.55	Average	Vertical

802.11n(HT40) / Channel 151 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5725.00	50.66	34.46	36.75	8.19	56.56	74	-17.44	Peak	Horizontal
5725.00	38.09	34.46	36.75	8.19	43.99	54	-10.01	Average	Horizontal
5725.00	50.87	34.52	36.75	8.19	56.83	74	-17.17	Peak	Vertical
5725.00	39.30	34.52	36.75	8.19	45.26	54	-8.74	Average	Vertical

802.11n(HT40) / Channel 159 / Chain 0 + Chain 1

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	51.17	34.82	36.80	8.30	57.49	74	-16.51	Peak	Horizontal
5850.00	39.33	34.82	36.80	8.30	45.65	54	-8.35	Average	Horizontal
5850.00	52.46	34.86	36.80	8.30	58.82	74	-15.18	Peak	Vertical
5850.00	41.10	34.86	36.80	8.30	47.46	54	-6.54	Average	Vertical

802.11n(HT40) / Channel 159 / Chain 2 + Chain 3

Freq. MHz	Reading Level dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
5850.00	50.45	34.82	36.80	8.30	56.77	74	-17.23	Peak	Horizontal
5850.00	39.57	34.82	36.80	8.30	45.89	54	-8.11	Average	Horizontal
5850.00	52.79	34.86	36.80	8.30	59.15	74	-14.85	Peak	Vertical
5850.00	41.03	34.86	36.80	8.30	47.39	54	-6.61	Average	Vertical

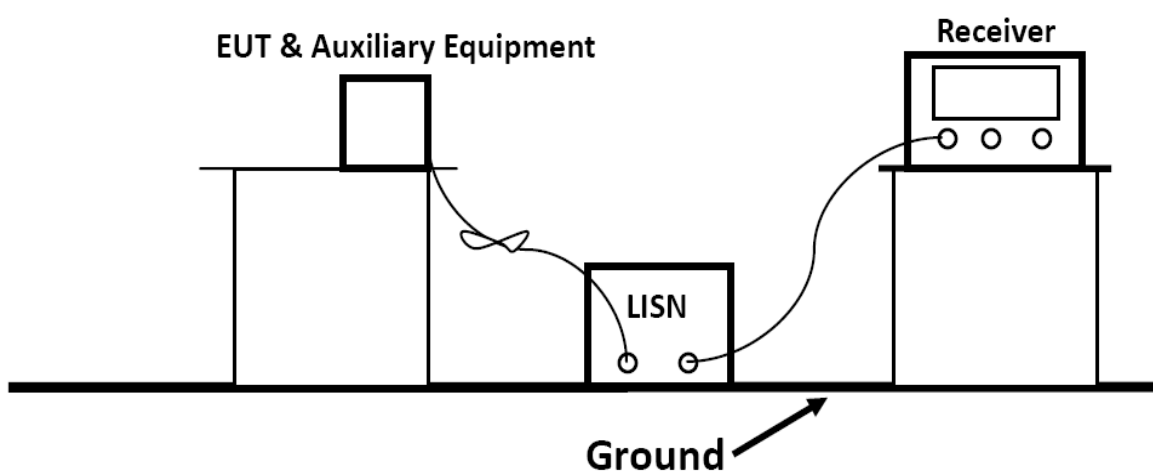
5.5. Power line conducted emissions

5.5.1 Standard Applicable

According to §15.207 (a): For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	Limits (dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

5.5.2 Block Diagram of Test Setup



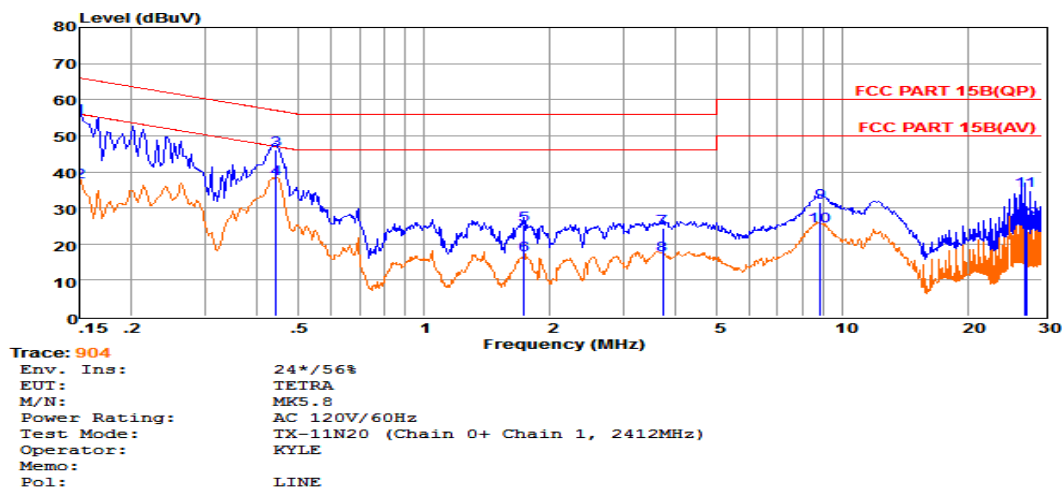
5.5.3 Test Results

PASS.

Only recorded the worst test case in this report.

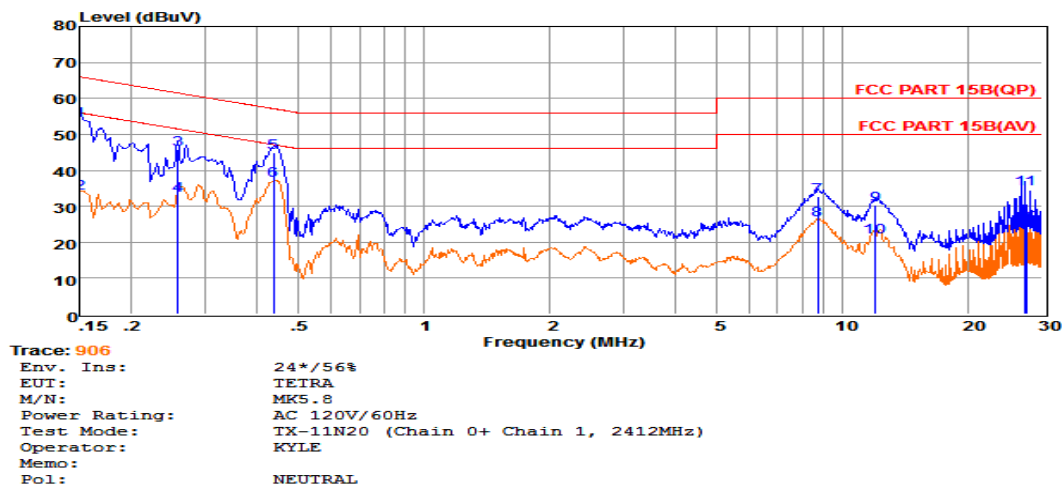
The test data please refer to following page.

The Test Result (Input AC 120V/60Hz):



Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	35.33	9.57	0.02	10.00	54.92	66.00	-11.08	QP
2 0.15010	17.52	9.57	0.02	10.00	37.11	55.99	-18.88	Average
3 0.44208	26.29	9.62	0.04	10.00	45.95	57.02	-11.07	QP
4 0.44218	18.34	9.62	0.04	10.00	38.00	47.02	-9.02	Average
5 1.73447	5.66	9.64	0.05	10.00	25.35	56.00	-30.65	QP
6 1.73547	-2.67	9.64	0.05	10.00	17.02	46.00	-28.98	Average
7 3.71976	4.63	9.65	0.06	10.00	24.34	56.00	-31.66	QP
8 3.72076	-2.83	9.65	0.06	10.00	16.88	46.00	-29.12	Average
9 8.86920	11.84	9.69	0.08	10.00	31.61	60.00	-28.39	QP
10 8.87020	5.35	9.69	0.08	10.00	25.12	50.00	-24.88	Average
1127.41598	15.07	9.71	0.14	10.00	34.92	60.00	-25.08	QP
1227.41698	6.64	9.71	0.14	10.00	26.49	50.00	-23.51	Average

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
2. The emission levels that are 20dB below the official limit are not reported.

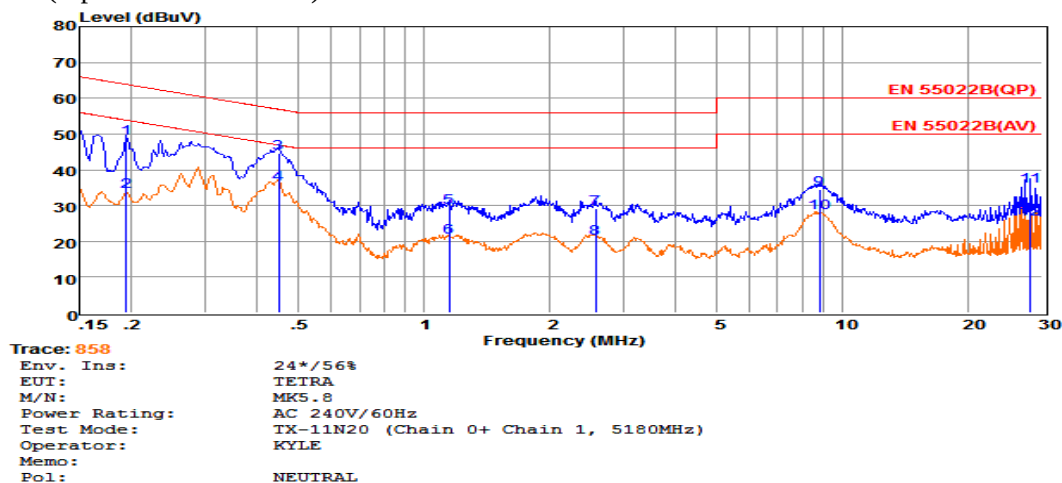


Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	34.09	9.70	0.02	10.00	53.81	66.00	-12.19	QP
2 0.15010	13.91	9.70	0.02	10.00	33.63	55.99	-22.36	Average
3 0.25751	26.29	9.60	0.03	10.00	45.92	61.51	-15.59	QP
4 0.25761	13.29	9.60	0.03	10.00	32.92	51.51	-18.59	Average
5 0.43742	25.14	9.62	0.04	10.00	44.80	57.11	-12.31	QP
6 0.43752	17.50	9.62	0.04	10.00	37.16	47.11	-9.95	Average
7 8.72934	13.02	9.71	0.08	10.00	32.81	60.00	-27.19	QP
8 8.73034	6.30	9.71	0.08	10.00	26.09	50.00	-23.91	Average
911.99618	10.43	9.73	0.09	10.00	30.25	60.00	-29.75	QP
1011.99718	1.66	9.73	0.09	10.00	21.48	50.00	-28.52	Average
1127.41598	14.92	9.83	0.14	10.00	34.89	60.00	-25.11	QP
1227.41698	4.89	9.83	0.14	10.00	24.86	50.00	-25.14	Average

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
2. The emission levels that are 20dB below the official limit are not reported.

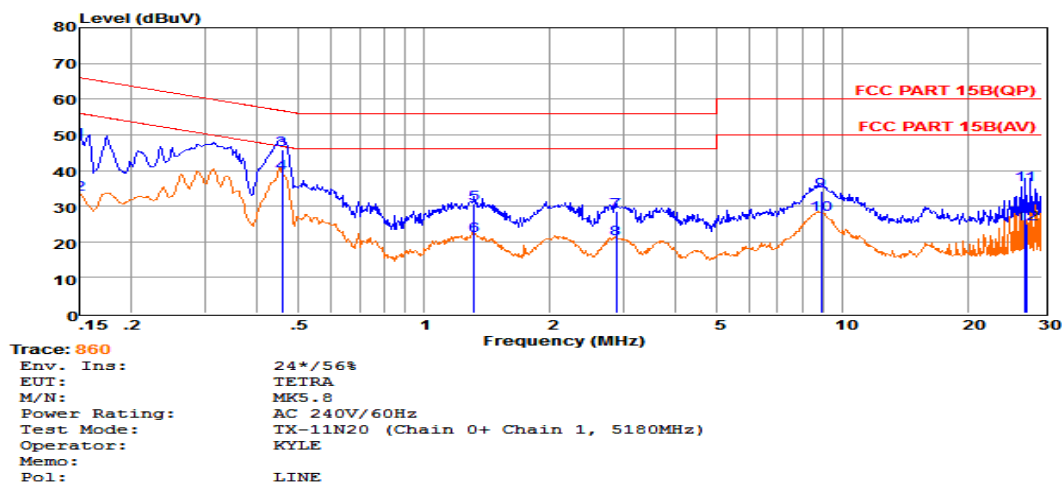
Note: Pre-scan all modes and recorded the worst case results in this report.

The Test Result (Input AC 240V/60Hz):



Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.19447	29.02	9.60	0.02	10.00	48.64	63.84	-15.20	QP
2 0.19457	14.42	9.60	0.02	10.00	34.04	53.84	-19.80	Average
3 0.44916	25.00	9.62	0.04	10.00	44.66	56.89	-12.23	QP
4 0.44926	16.35	9.62	0.04	10.00	36.01	46.89	-10.88	Average
5 1.14733	9.84	9.63	0.05	10.00	29.52	56.00	-26.48	QP
6 1.14833	1.40	9.63	0.05	10.00	21.08	46.00	-24.92	Average
7 2.56710	9.47	9.64	0.05	10.00	29.16	56.00	-26.84	QP
8 2.56810	1.16	9.64	0.05	10.00	20.85	46.00	-25.15	Average
9 8.82233	14.60	9.71	0.08	10.00	34.39	60.00	-25.61	QP
10 8.82333	8.15	9.71	0.08	10.00	27.94	50.00	-22.06	Average
1128.15198	15.45	9.84	0.14	10.00	35.43	60.00	-24.57	QP
1228.15298	6.17	9.84	0.14	10.00	26.15	50.00	-23.85	Average

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
2. The emission levels that are 20dB below the official limit are not reported.



Freq	Reading	LisnFac	CabLos	Atten_Fac	Measured	Limit	Over	Remark
MHz	dBuV	dB	dB	dB	dBuV	dBuV	dB	
1 0.15000	28.46	9.57	0.02	10.00	48.05	66.00	-17.95	QP
2 0.15010	13.71	9.57	0.02	10.00	33.30	55.99	-22.69	Average
3 0.45878	26.16	9.62	0.04	10.00	45.82	56.71	-10.89	QP
4 0.45888	19.46	9.62	0.04	10.00	39.12	46.71	-7.59	Average
5 1.31678	10.94	9.63	0.05	10.00	30.62	56.00	-25.38	QP
6 1.31778	2.06	9.63	0.05	10.00	21.74	46.00	-24.26	Average
7 2.88447	8.88	9.64	0.06	10.00	28.58	56.00	-27.42	QP
8 2.88547	1.20	9.64	0.06	10.00	20.90	46.00	-25.10	Average
9 8.91632	14.30	9.69	0.08	10.00	34.07	60.00	-25.93	QP
10 8.91732	7.92	9.69	0.08	10.00	27.69	50.00	-22.31	Average
1127.41598	16.07	9.71	0.14	10.00	35.92	60.00	-24.08	QP
1227.41698	5.19	9.71	0.14	10.00	25.04	50.00	-24.96	Average

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss+Atten_Fac.
2. The emission levels that are 20dB below the official limit are not reported.

Note: Pre-scan all modes and recorded the worst case results in this report.

5.6. Antenna Requirements

5.6.1. Standard Applicable

According to § 15.203, 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 shall be considered sufficient to comply with the provisions of this section. 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.

5.6.2. Antenna Connector Construction

The antenna used for transmitting is connect to PCB board by antenna port. Please see EUT photo for details.

5.6.3. Results: Compliance.

-----THE END OF REPORT-----