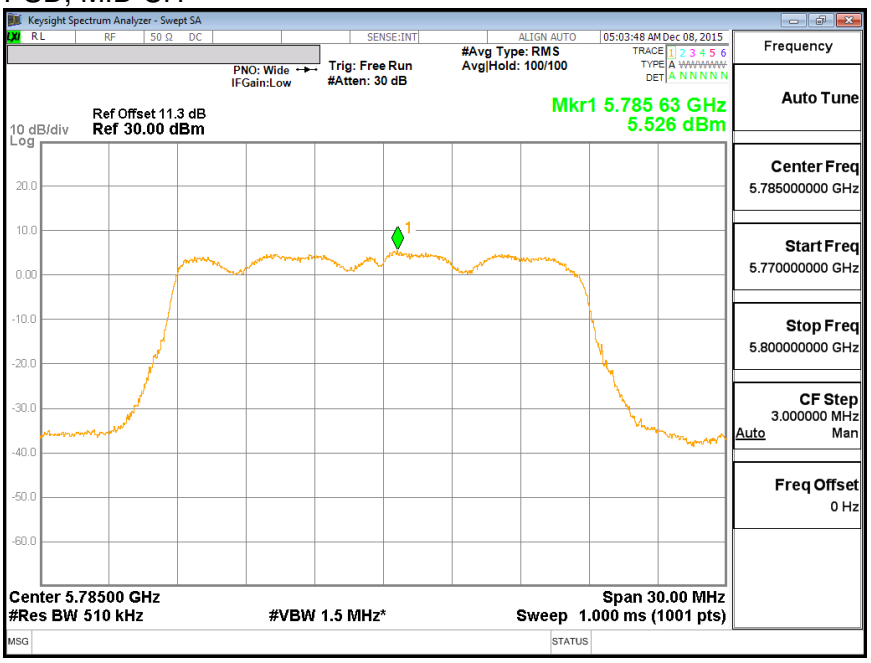
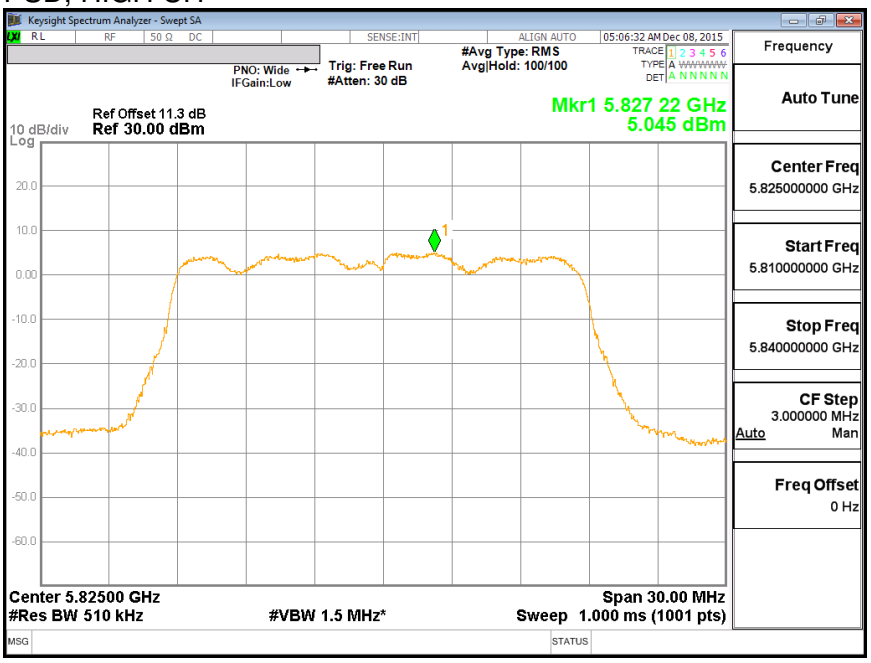
PSD, MID CH



PSD, HIGH CH



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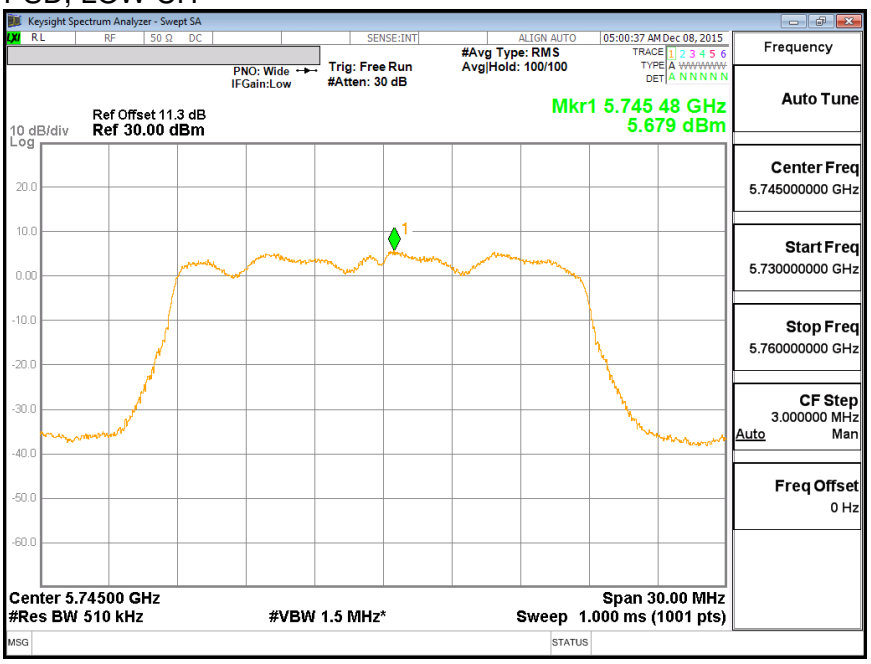
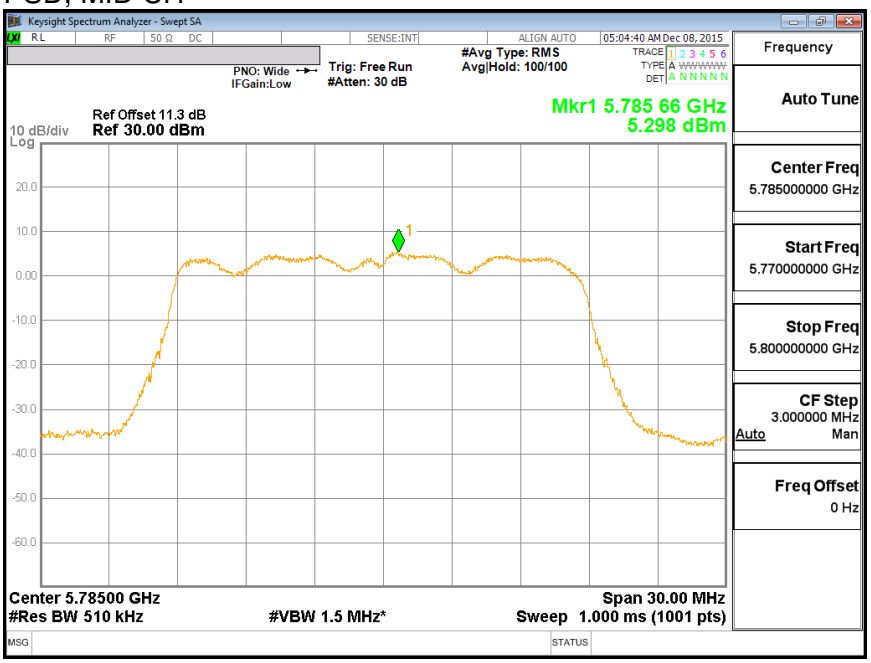
PSD, CHAIN 2

PSD, LOW CH



PSD, MID CH



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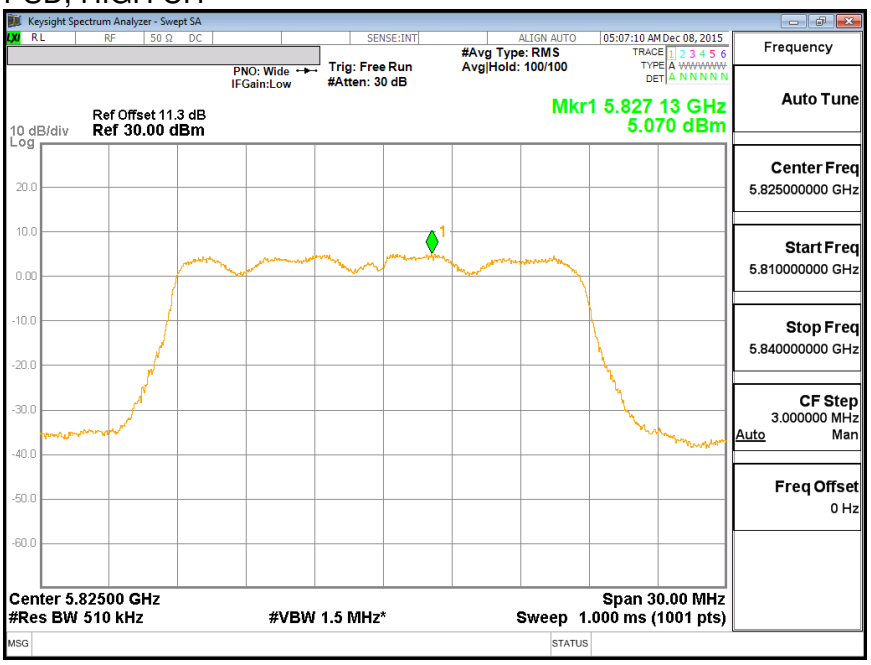
PSD, HIGH CH



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8.7. 802.11n HT20 3TX STBC MODE IN THE 5.8 GHz BAND

NOTE: Covered by 802.11n HT20 3TX CDD.

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8.8. 802.11n HT20 3TX BF MODE IN THE 5.8 GHz BAND

8.8.1. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5745	14.08	14.18	14.31	18.96
Mid	5785	15.12	15.19	15.33	19.99
High	5825	14.02	14.27	14.35	18.99

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8.8.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	1.90	4.40	7.83

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5745	7.83	28.17
Mid	5785	7.83	28.17
High	5825	7.83	28.17

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.08	14.18	14.31	18.96	28.17	-9.21
Mid	5785	15.12	15.19	15.33	19.99	28.17	-8.18
High	5825	14.02	14.27	14.35	18.99	28.17	-9.18

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8.8.3. **PSD**

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	1.90	4.40	7.83

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5745	7.83	28.17
Mid	5785	7.83	28.17
High	5825	7.83	28.17

Duty Cycle CF (dB)	0.12	**Included in Calculations of Corr'd Power**

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	2.17	2.35	2.46	7.22	28.17	-20.95
Mid	5785	2.29	2.42	2.58	7.33	28.17	-20.84
High	5825	2.51	2.67	2.75	7.53	28.17	-20.64

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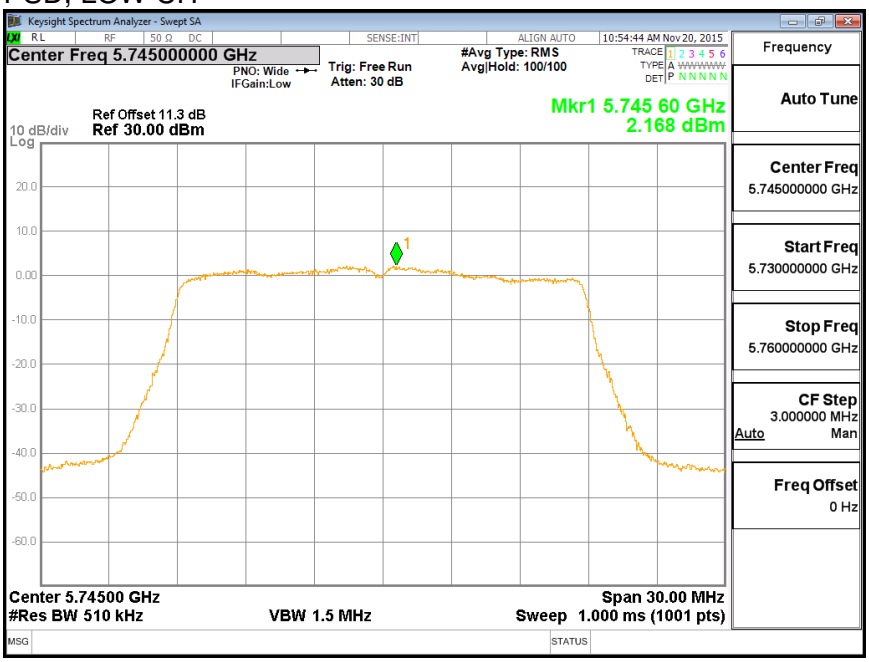
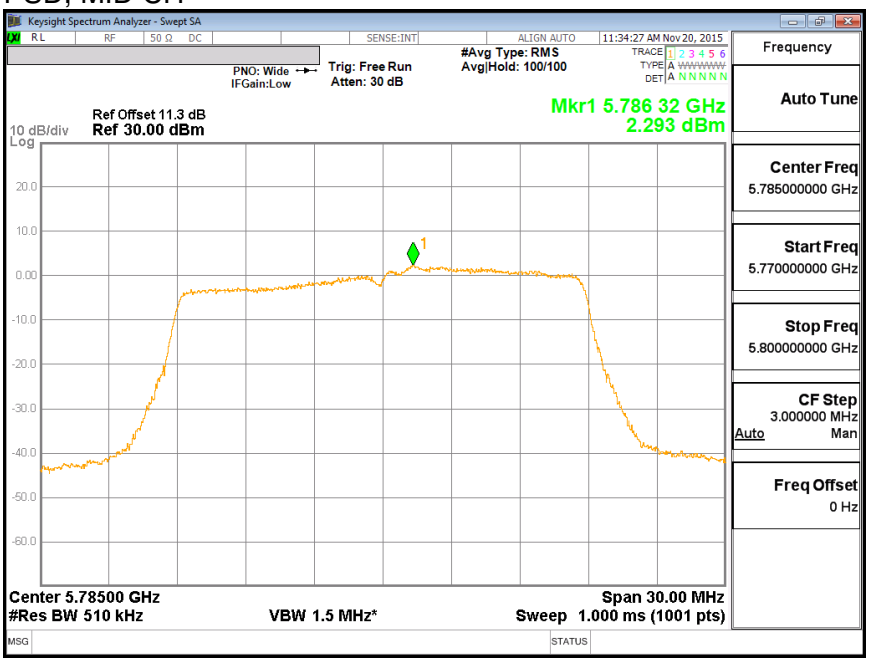
PSD, CHAIN 0

PSD, LOW CH



PSD, MID CH



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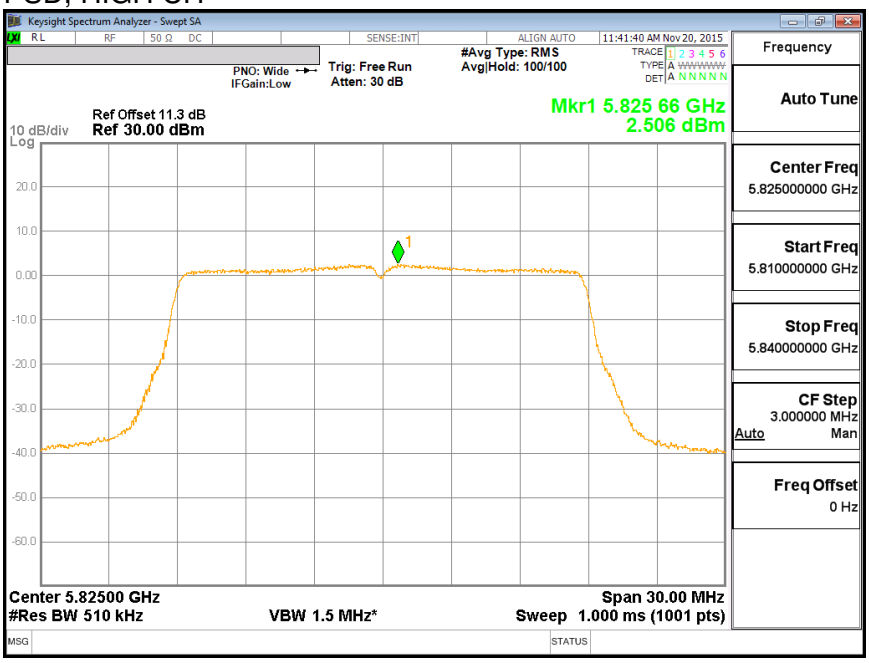
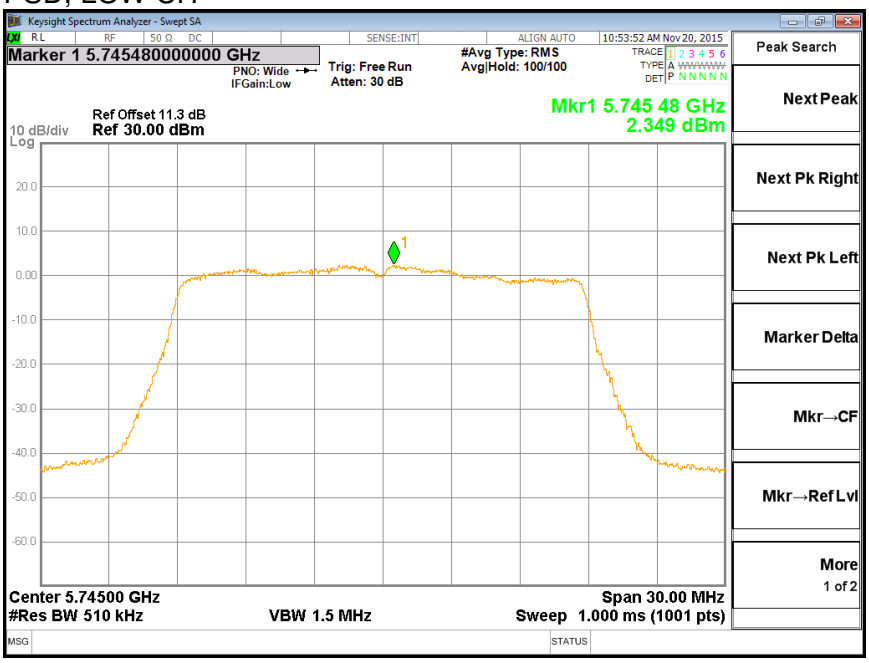
PSD, HIGH CH



PSD, CHAIN 1

PSD, LOW CH



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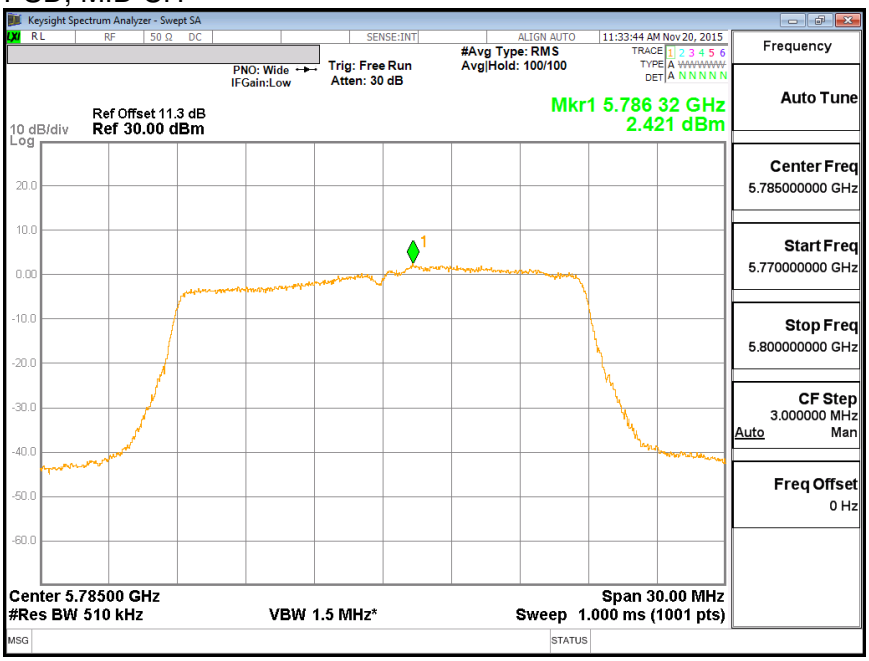
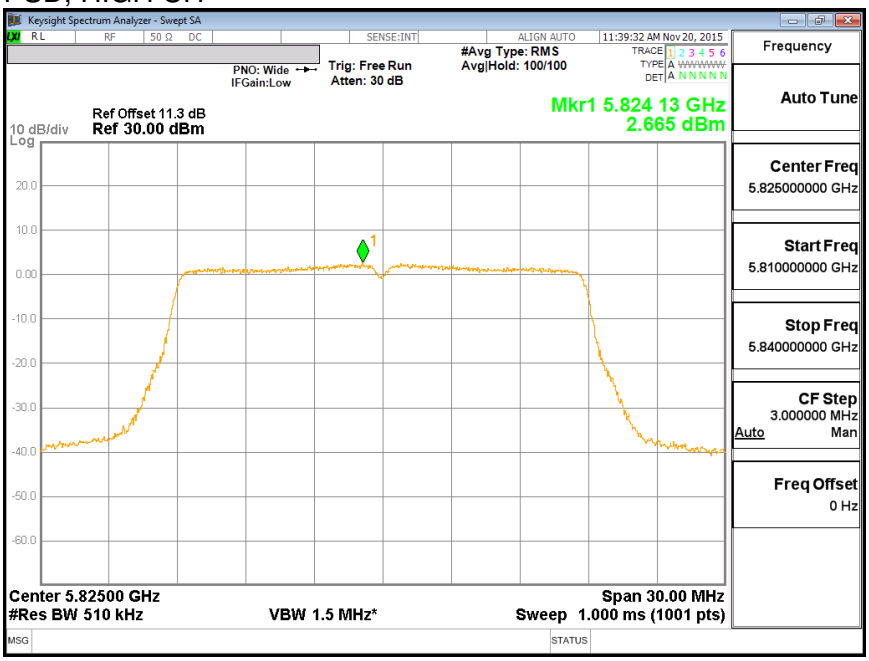
PSD, MID CH



PSD, HIGH CH



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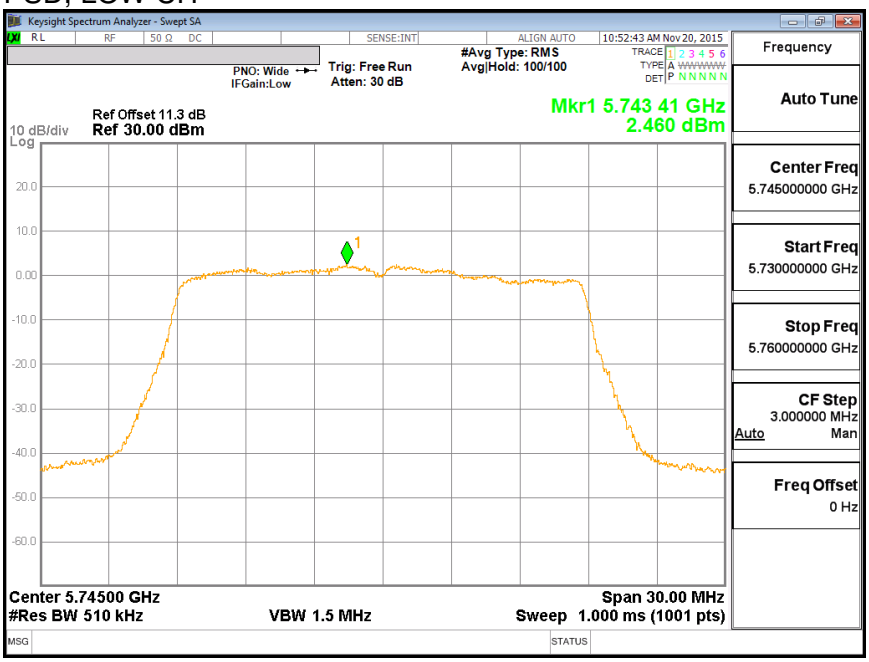
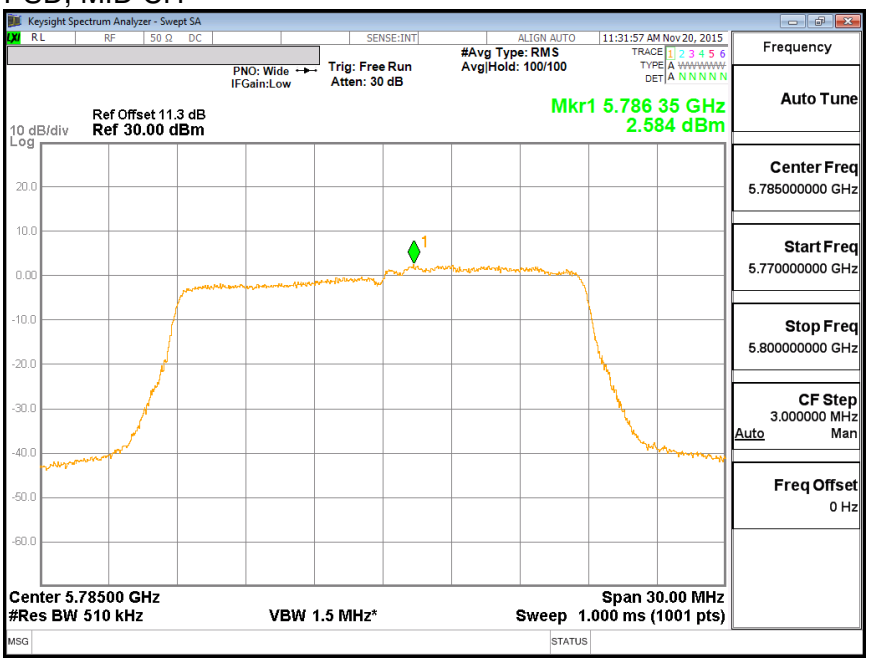
PSD, CHAIN 2

PSD, LOW CH



PSD, MID CH



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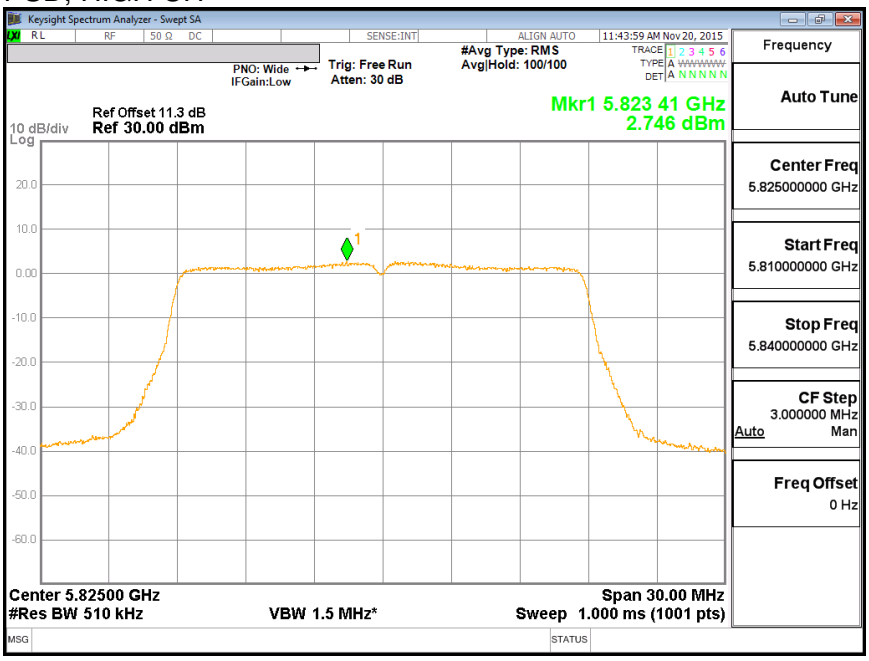
PSD, HIGH CH



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8.9. 802.11n HT40 1TX MODE IN THE 5.8 GHz BAND

8.9.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.36	0.5
High	5795	36.30	0.5

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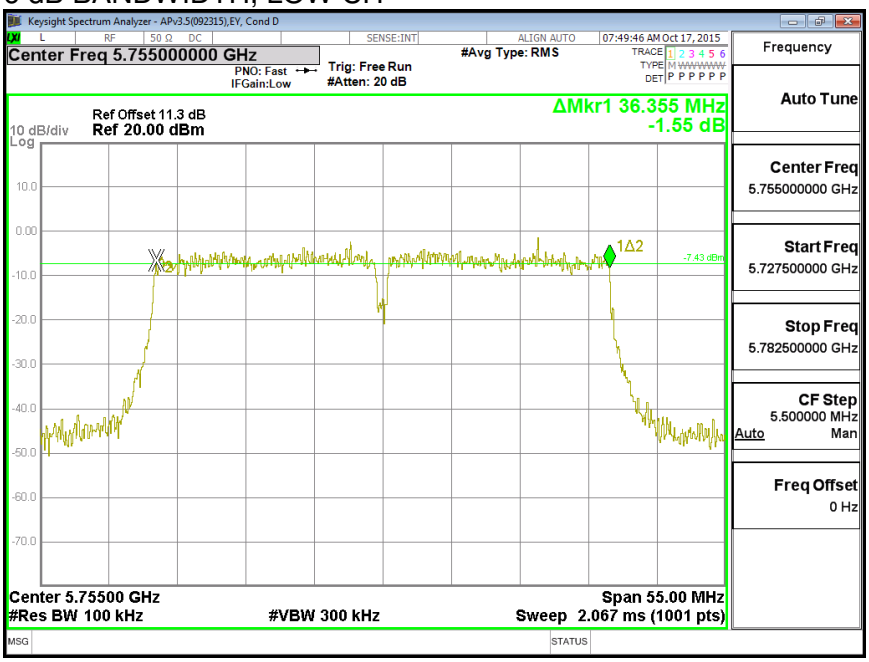
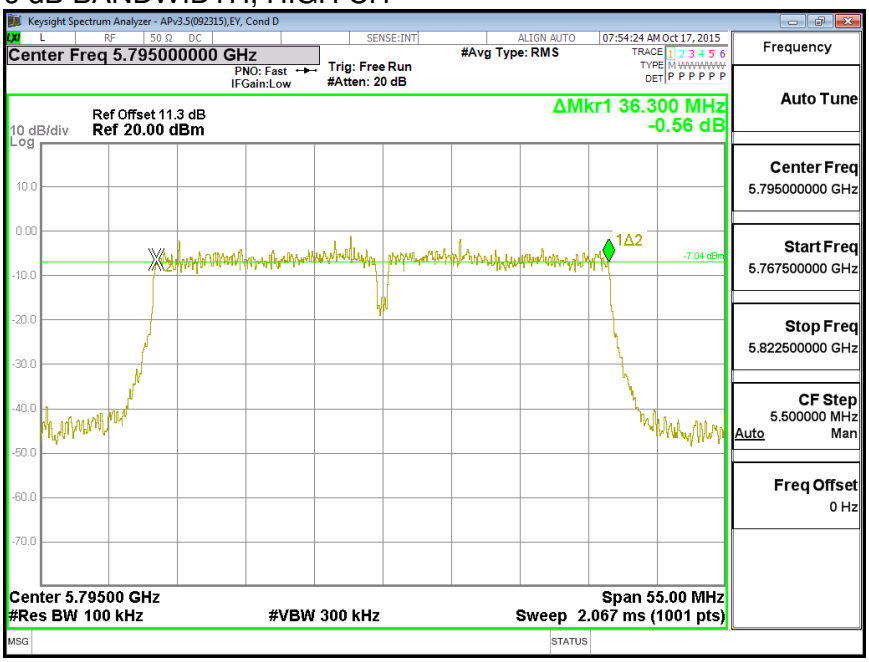
6 dB BANDWIDTH

6 dB BANDWIDTH, LOW CH



6 dB BANDWIDTH, HIGH CH



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8.9.2. **26 dB BANDWIDTH**

LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	39.06
High	5795	39.60

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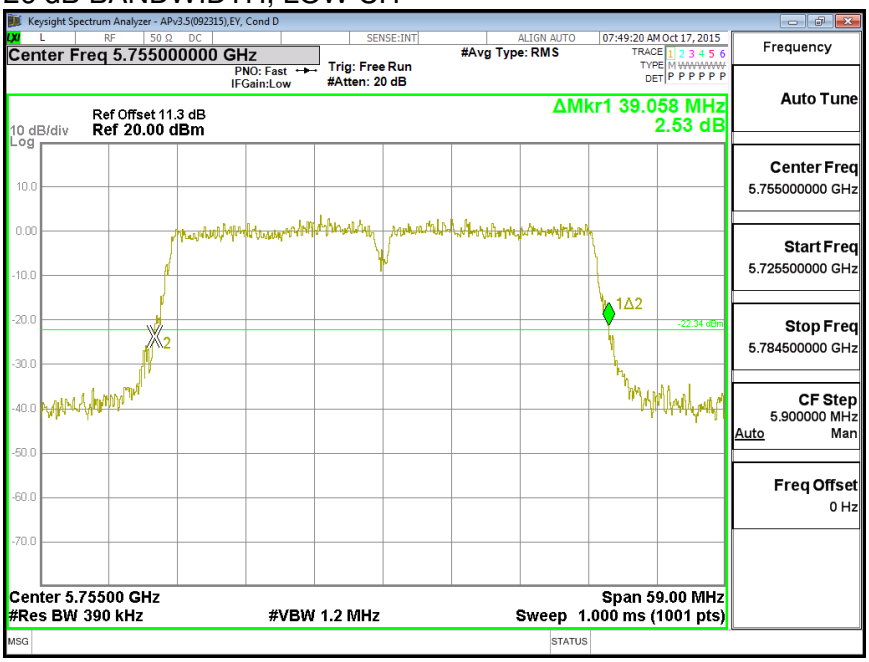
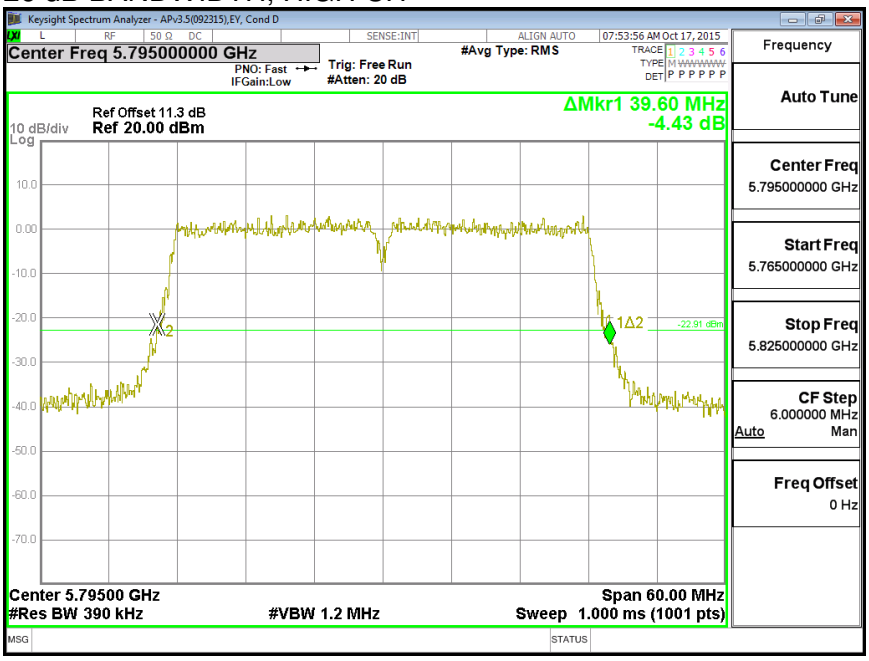
26 dB BANDWIDTH

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, HIGH CH



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8.9.3. **99% BANDWIDTH**

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.230
High	5795	36.347

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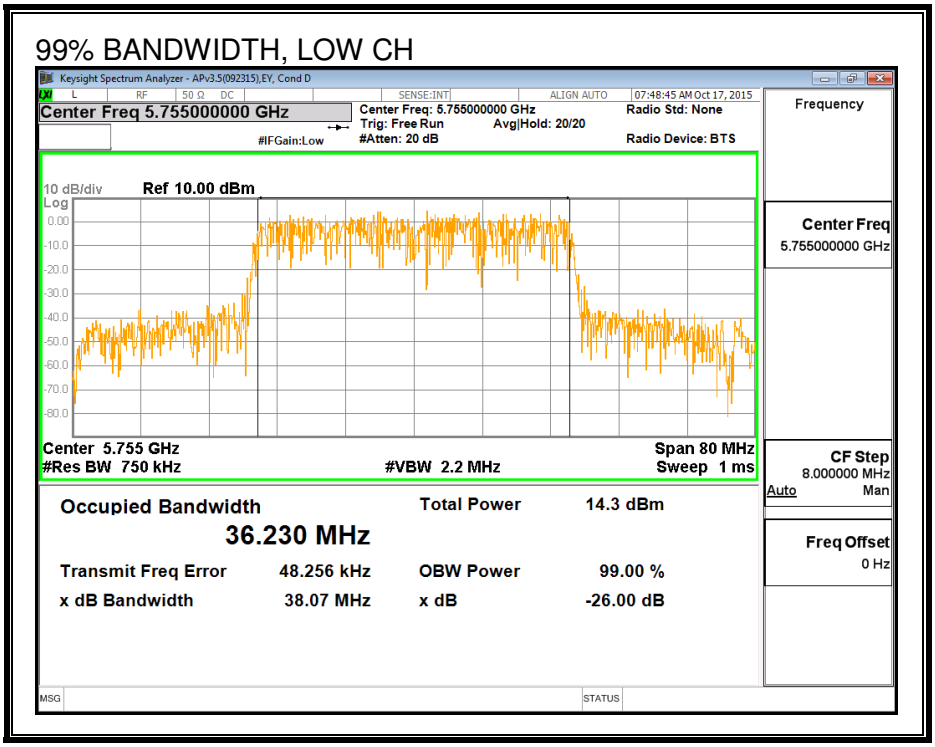
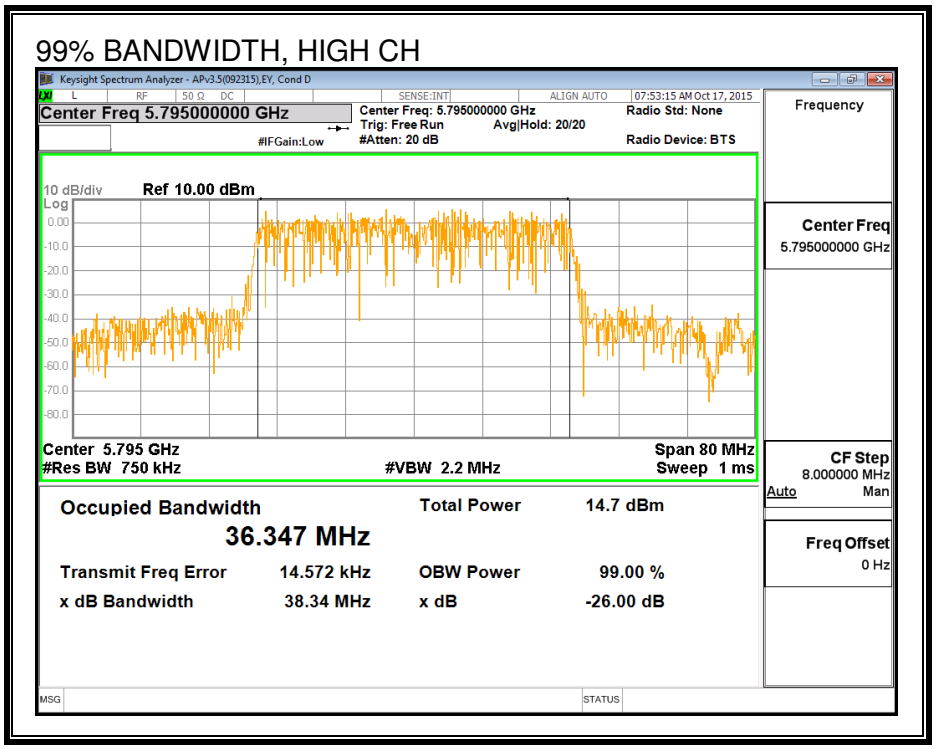
99% BANDWIDTH





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8.9.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5755	16.26
High	5795	19.20

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8.9.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	4.40	30.00
High	5795	4.40	30.00

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	16.26	16.26	30.00	-13.74
High	5795	19.20	19.20	30.00	-10.80

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8.9.6. **PSD**

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

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RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	4.40	30.00
High	5795	4.40	30.00

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd PSD**

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	0.71	0.71	30.00	-29.29
High	5795	4.20	4.20	30.00	-25.80

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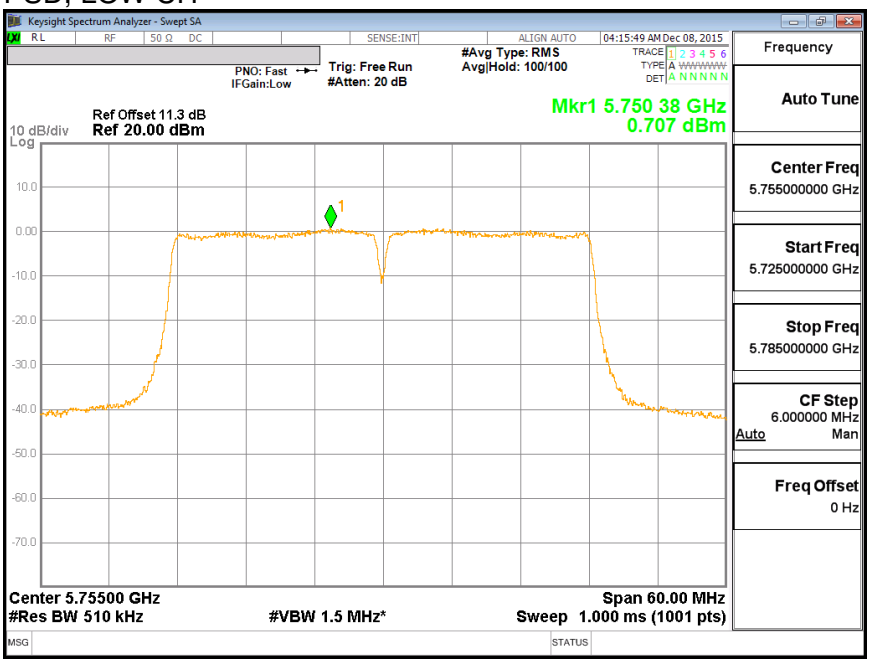
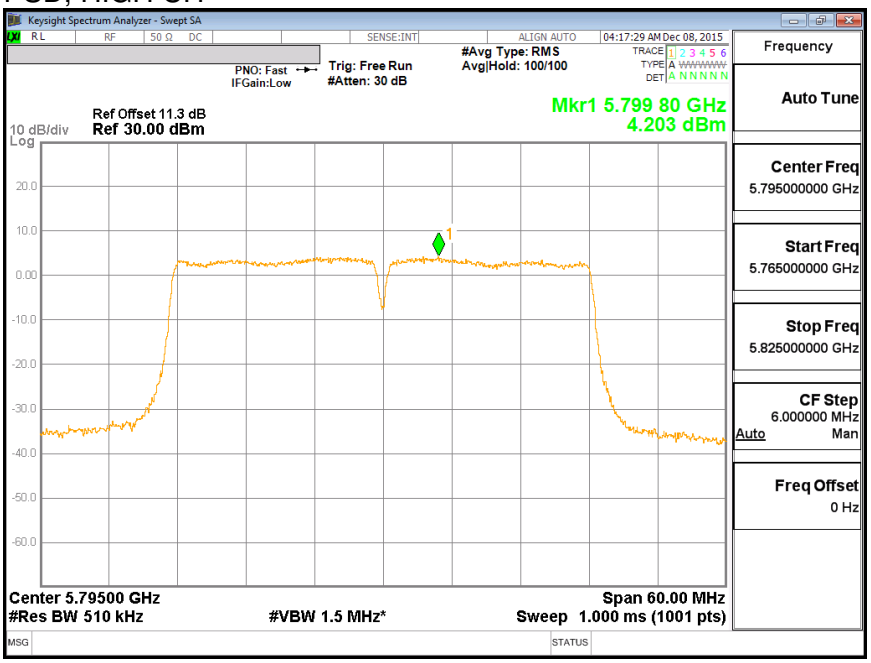
PSD

PSD, LOW CH



PSD, HIGH CH



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8.10. 802.11n HT40 2TX CDD MODE IN THE 5.8 GHz BAND

8.10.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 2 (MHz)	Minimum Limit (MHz)
Low	5755	36.08	36.36	0.5
High	5795	36.36	36.36	0.5

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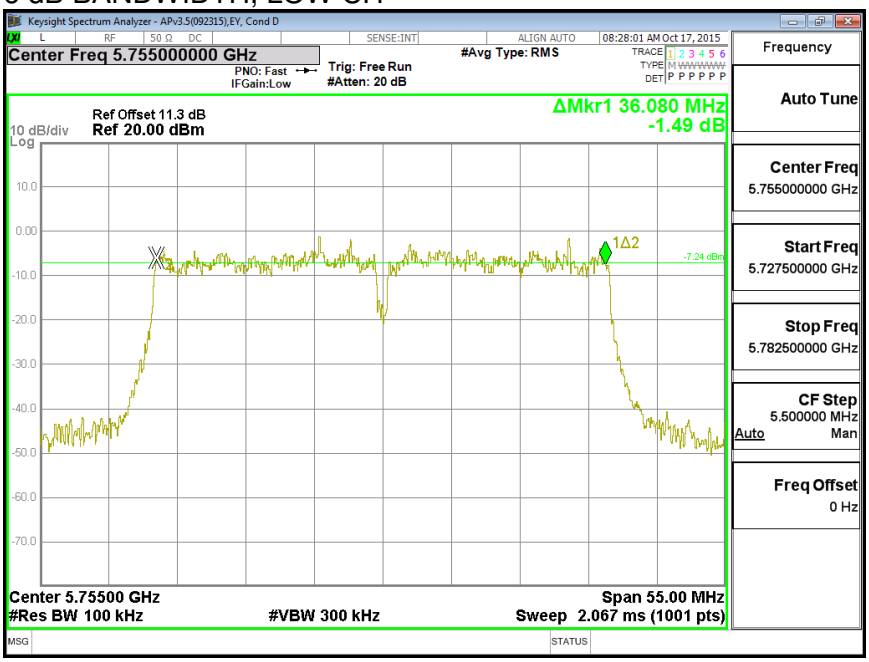
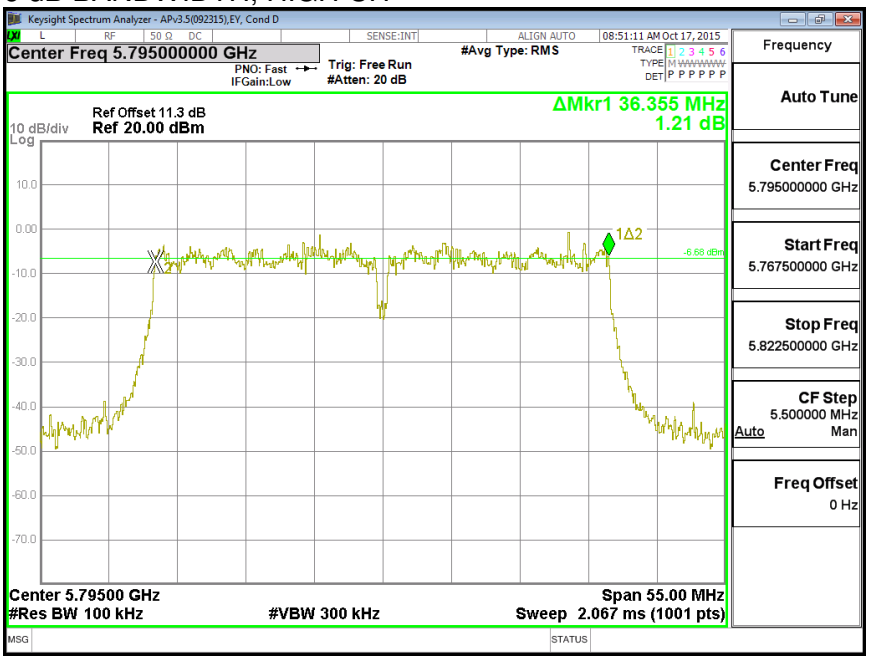
6 dB BANDWIDTH, CHAIN 0

6 dB BANDWIDTH, LOW CH



6 dB BANDWIDTH, HIGH CH



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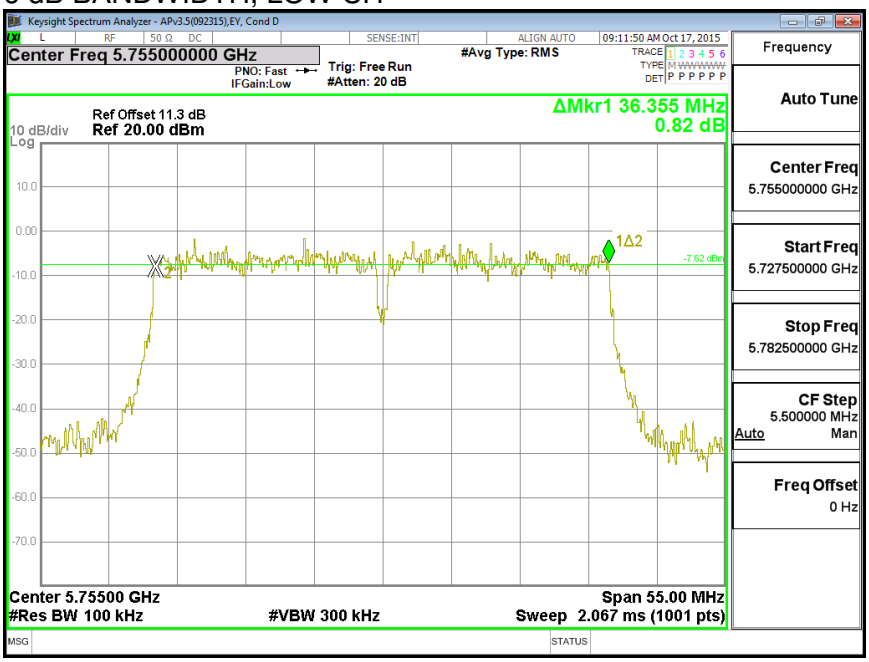
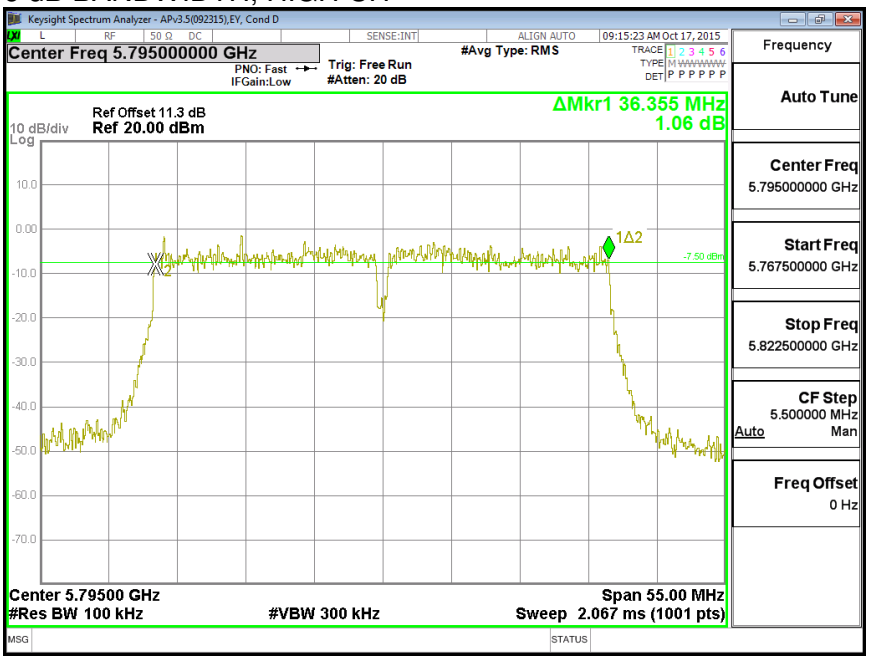
6 dB BANDWIDTH, CHAIN 2

6 dB BANDWIDTH, LOW CH



6 dB BANDWIDTH, HIGH CH



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8.10.2. 26 dB BANDWIDTH

LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 2 (MHz)
Low	5755	39.24	38.45
High	5795	39.24	38.94

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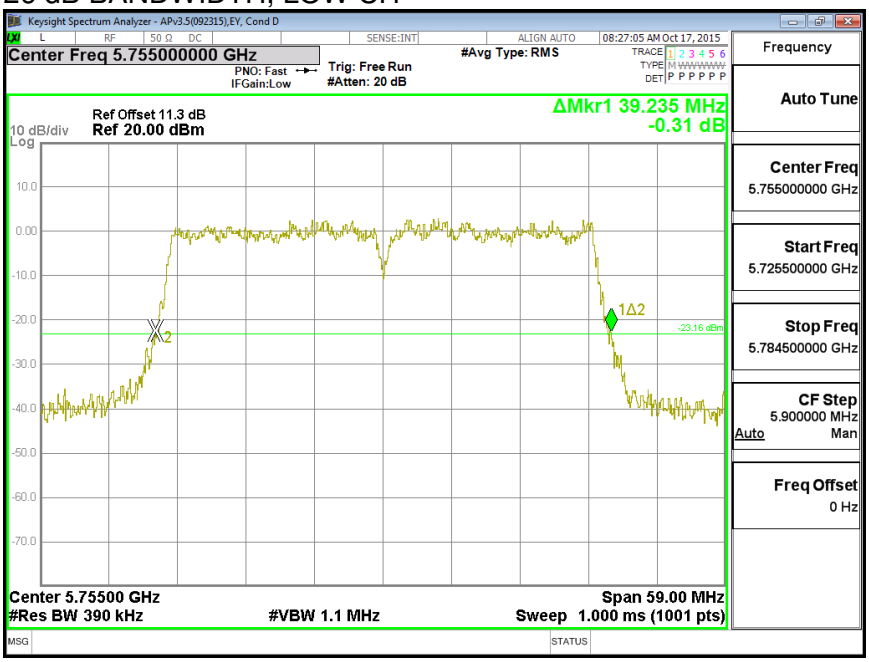
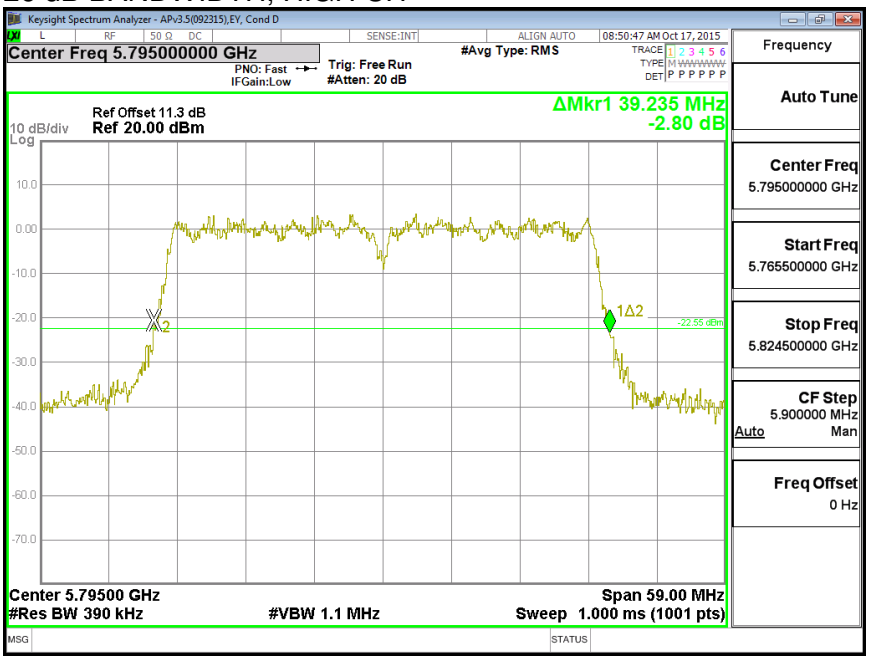
26 dB BANDWIDTH, CHAIN 0

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, HIGH CH



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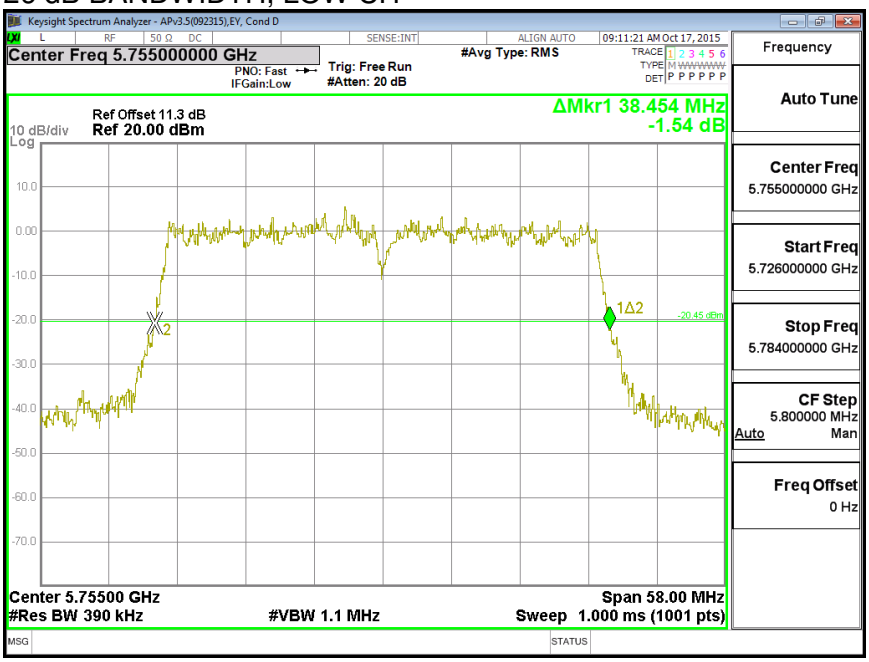
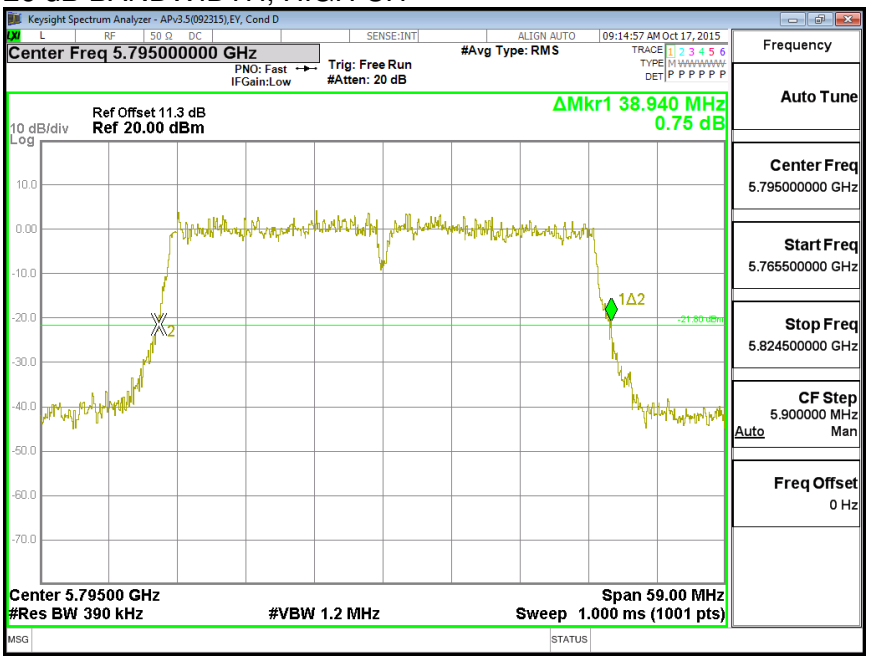
26 dB BANDWIDTH, CHAIN 2

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, HIGH CH



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8.10.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 2 (MHz)
Low	5755	36.279	36.329
High	5795	36.434	36.352

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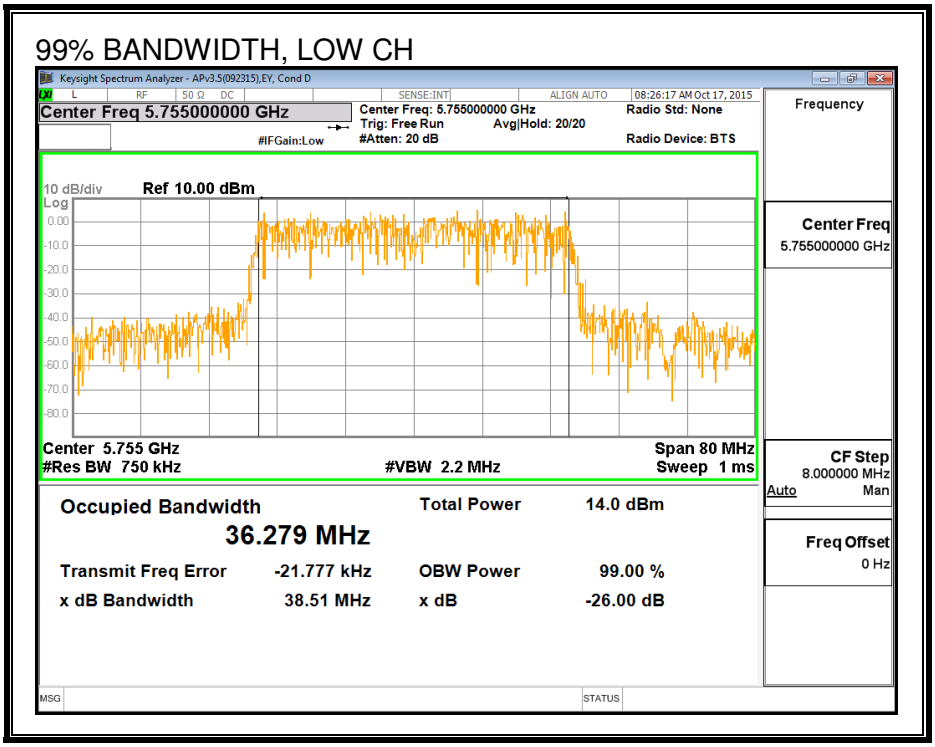
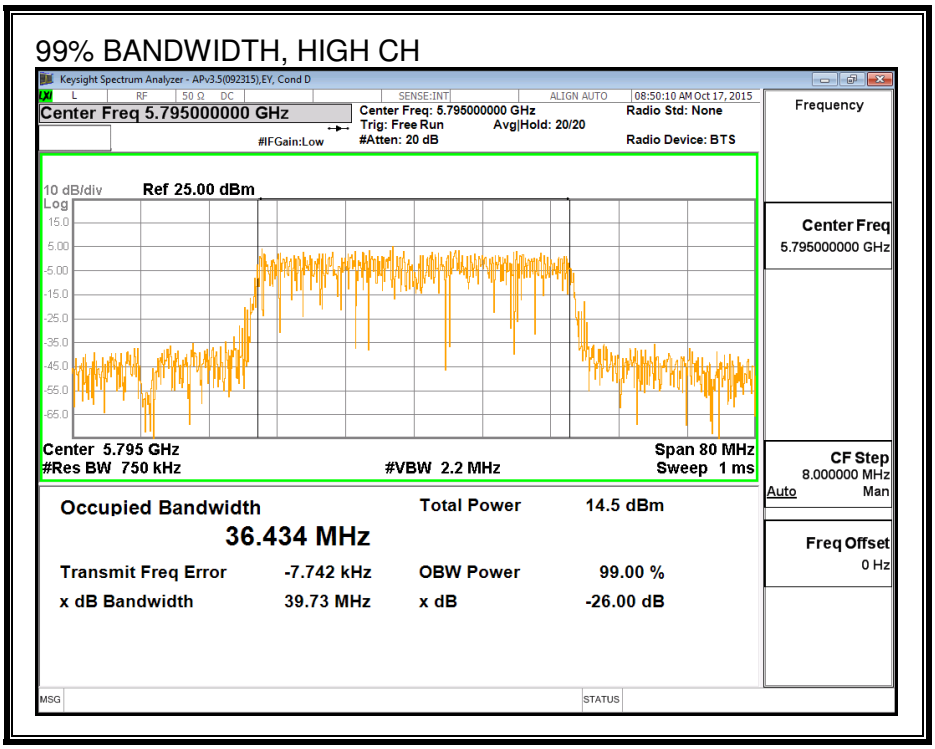
99% BANDWIDTH, CHAIN 0





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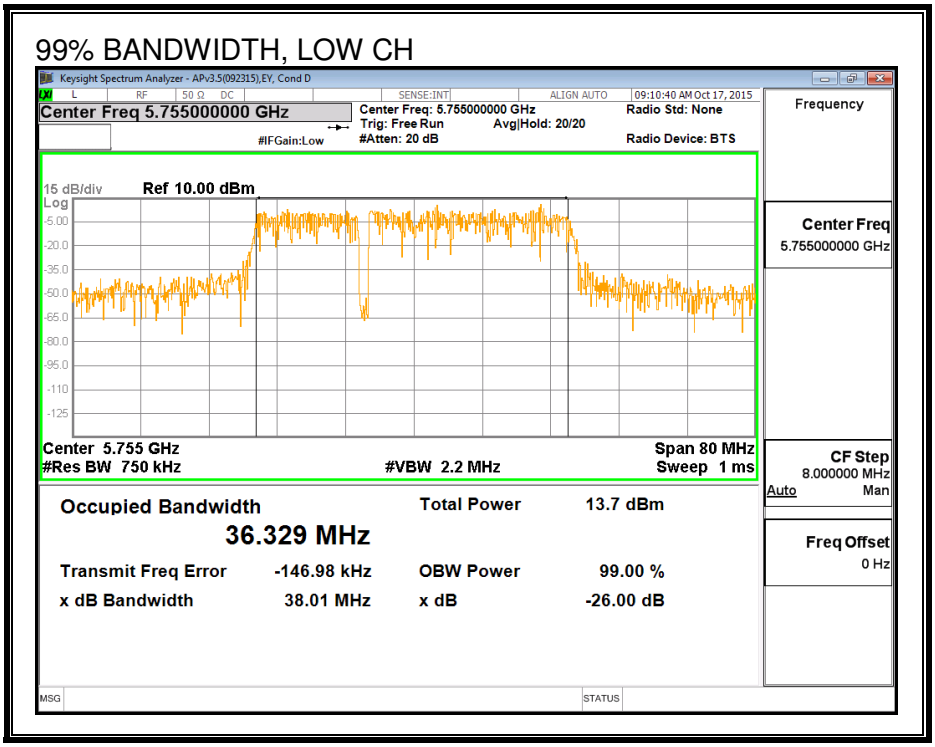
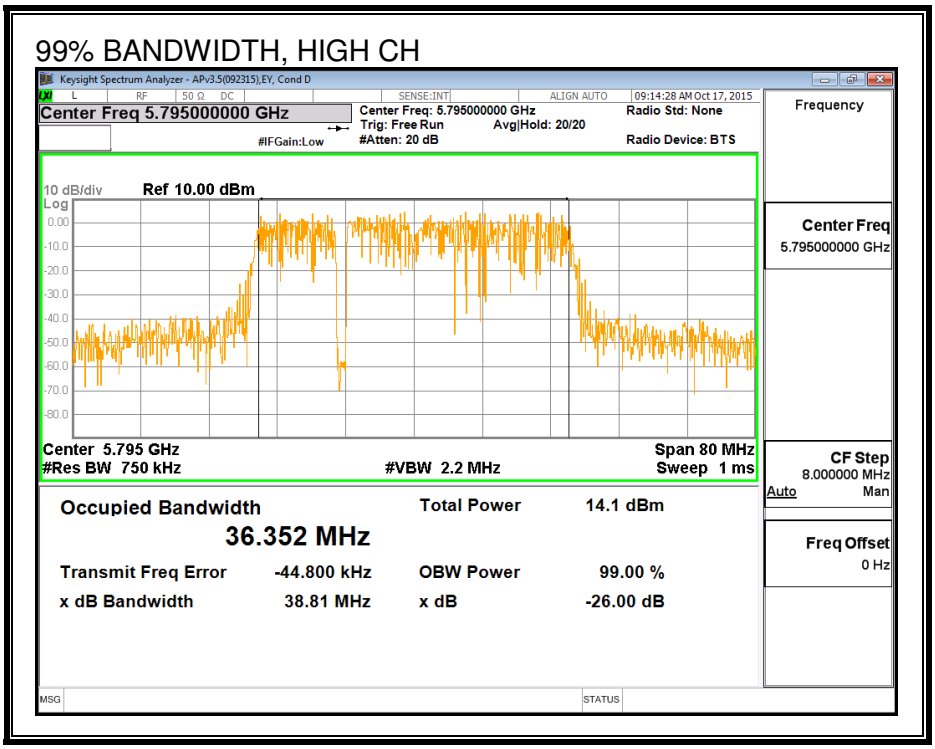
99% BANDWIDTH, CHAIN 2





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8.10.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5755	15.18	15.00	18.10
High	5795	18.08	17.90	21.00

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8.10.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	4.40	3.63

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	3.63	30.00
High	5795	3.63	30.00

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	15.18	15.00	18.10	30.00	-11.90
High	5795	18.08	17.90	21.00	30.00	-9.00

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8.10.6. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	4.40	6.60

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	6.60	29.40
High	5795	6.60	29.40

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd PSD**

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	2.26	2.21	5.25	29.40	-24.15
High	5795	4.82	4.75	7.79	29.40	-21.61

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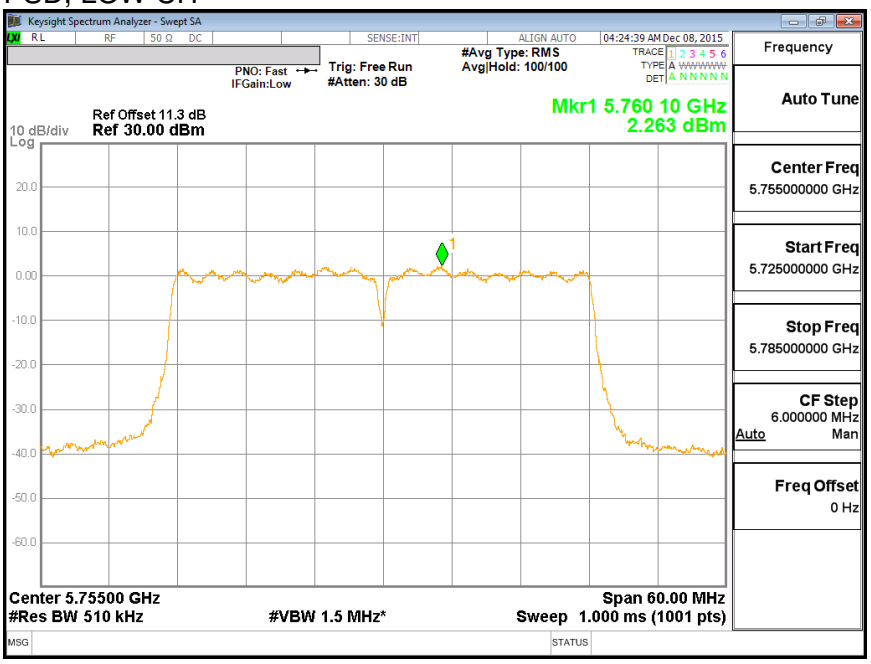
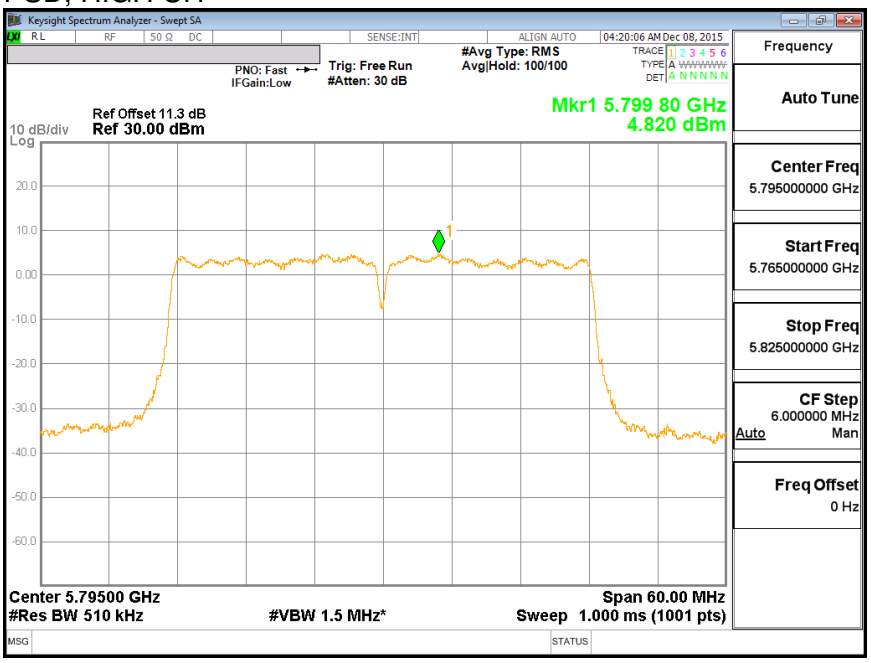
PSD, CHAIN 0

PSD, LOW CH



PSD, HIGH CH



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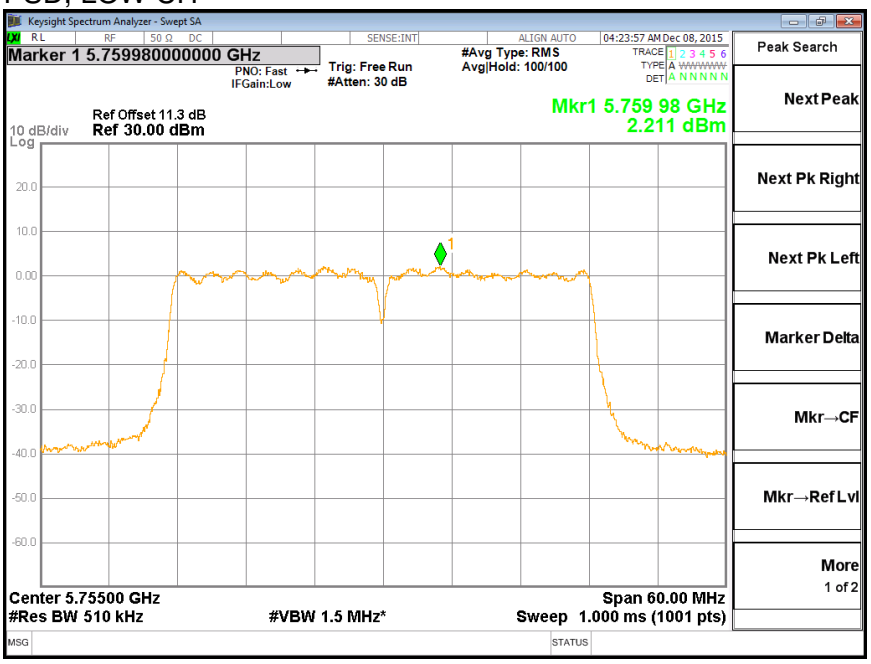
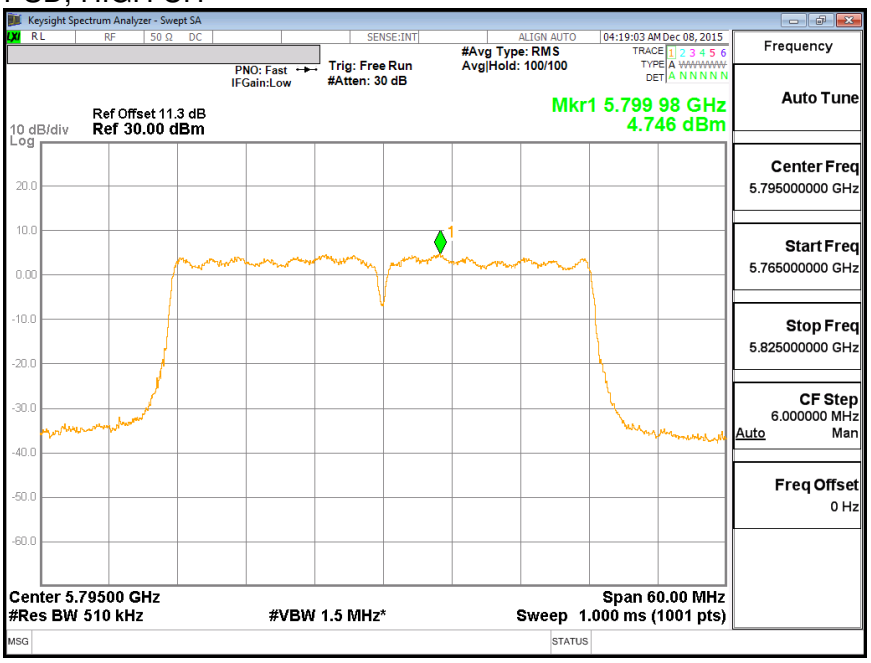
PSD, CHAIN 2

PSD, LOW CH



PSD, HIGH CH



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8.11. 802.11n HT40 2TX STBC MODE IN THE 5.8 GHz BAND

NOTE: Covered by 802.11n HT40 2TX CDD.

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8.12. 802.11n HT40 2TX BF MODE IN THE 5.8 GHz BAND

8.12.1. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5755	14.13	14.06	17.11
High	5795	17.24	17.17	20.22

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8.12.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	4.40	6.60

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	6.60	29.40
High	5795	6.60	29.40

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	14.13	14.06	17.11	29.40	-12.29
High	5795	17.24	17.17	20.22	29.40	-9.18

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8.12.3. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	4.40	6.60

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	6.60	29.40
High	5795	6.60	29.40

Duty Cycle CF (dB)	0.12	**Included in Calculations of Corr'd PSD**

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-2.10	-2.22	0.97	29.40	-28.43
High	5795	2.34	2.10	5.35	29.40	-24.05

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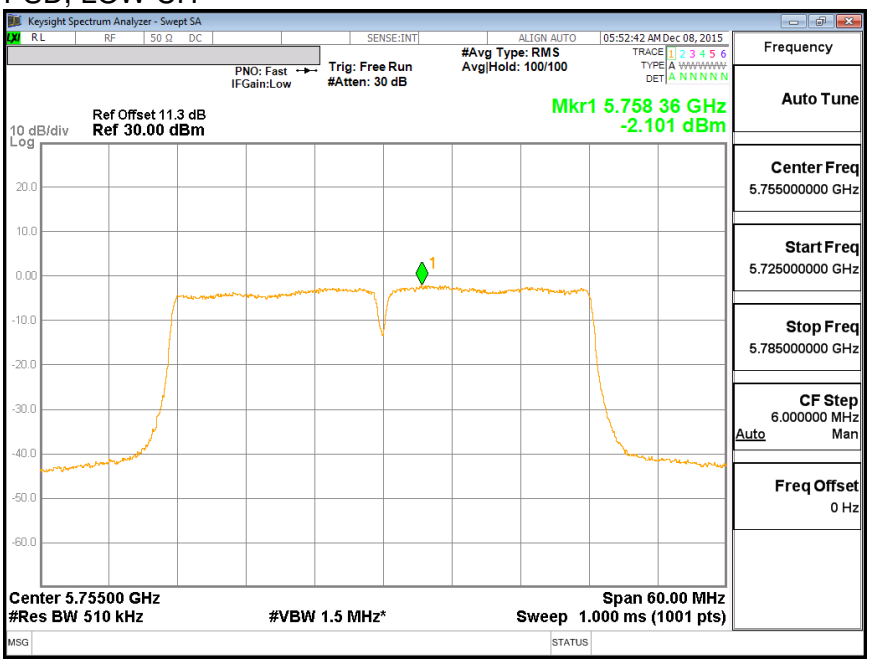
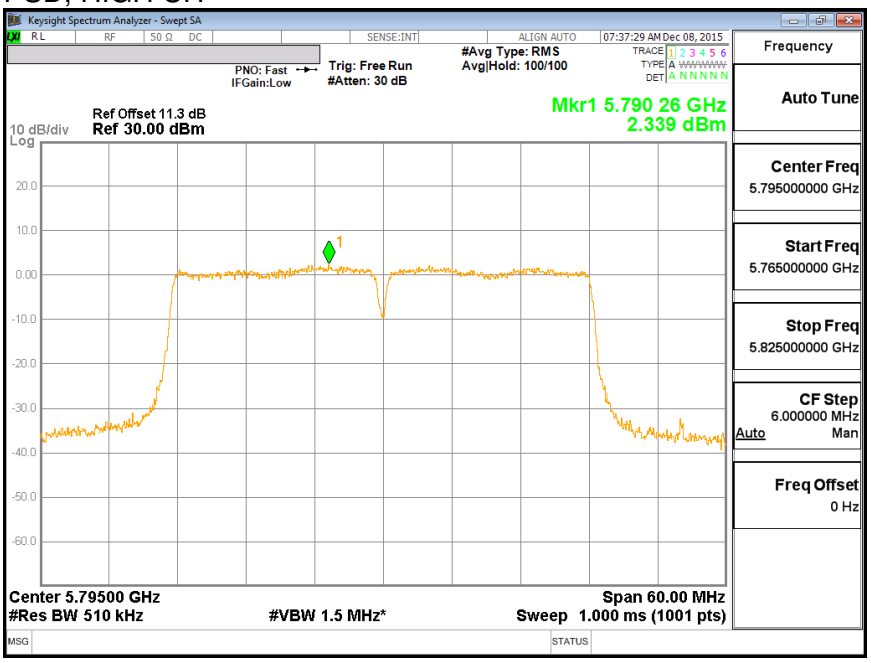
PSD, CHAIN 0

PSD, LOW CH



PSD, HIGH CH



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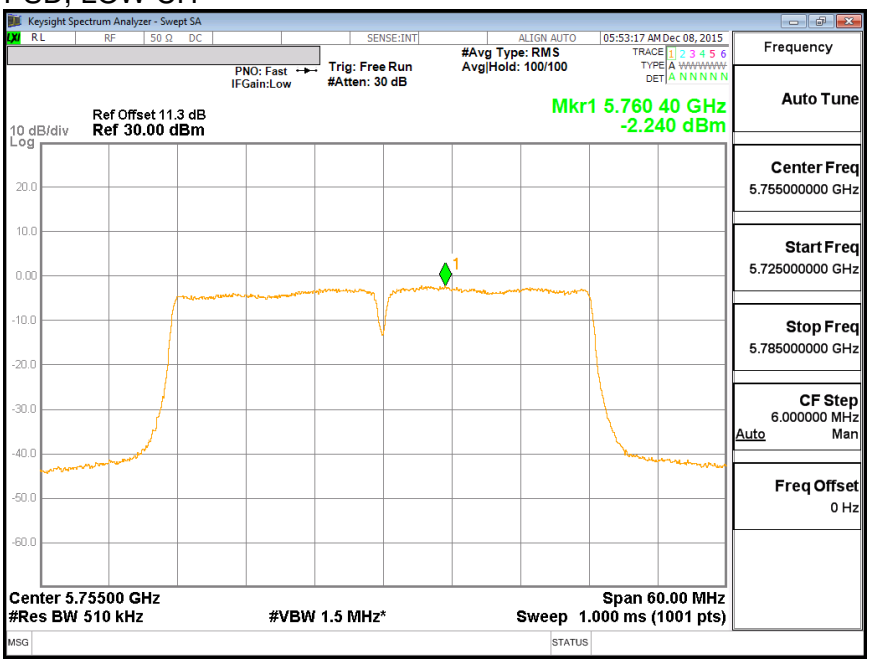
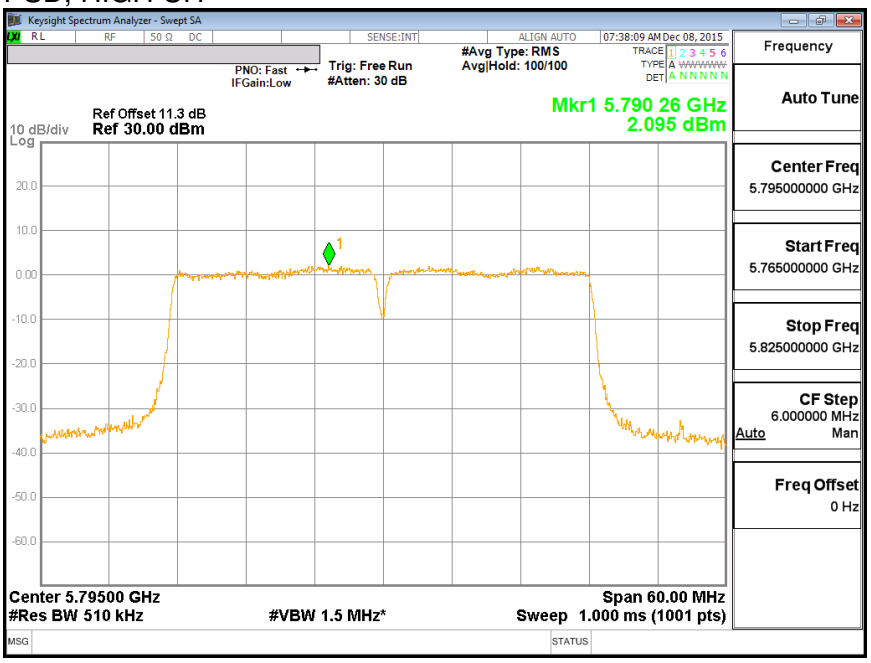
PSD, CHAIN 2

PSD, LOW CH



PSD, HIGH CH



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8.13. 802.11n HT40 3TX CDD MODE IN THE 5.8 GHz BAND

8.13.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	6 dB BW Chain 2 (MHz)	Minimum Limit (MHz)
Low	5755	36.30	36.41	36.36	0.5
High	5795	36.41	36.30	35.86	0.5

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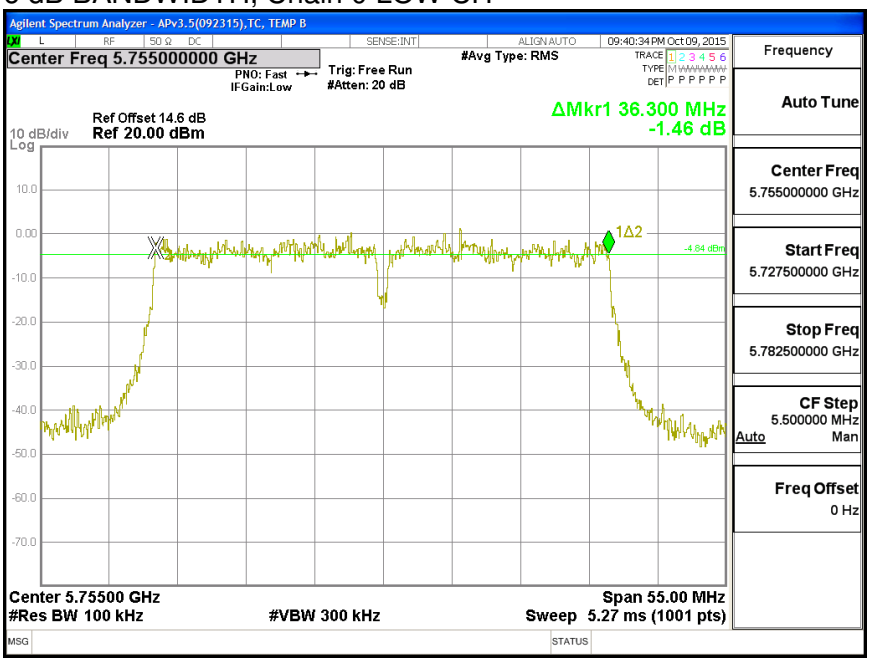
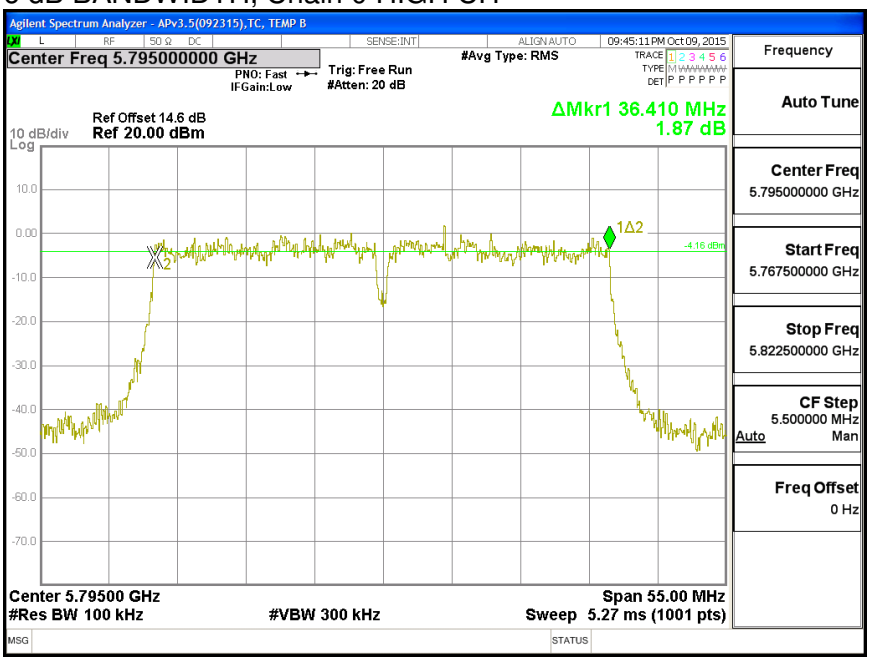
6 dB BANDWIDTH, CHAIN 0

6 dB BANDWIDTH, Chain 0 LOW CH



6 dB BANDWIDTH, Chain 0 HIGH CH



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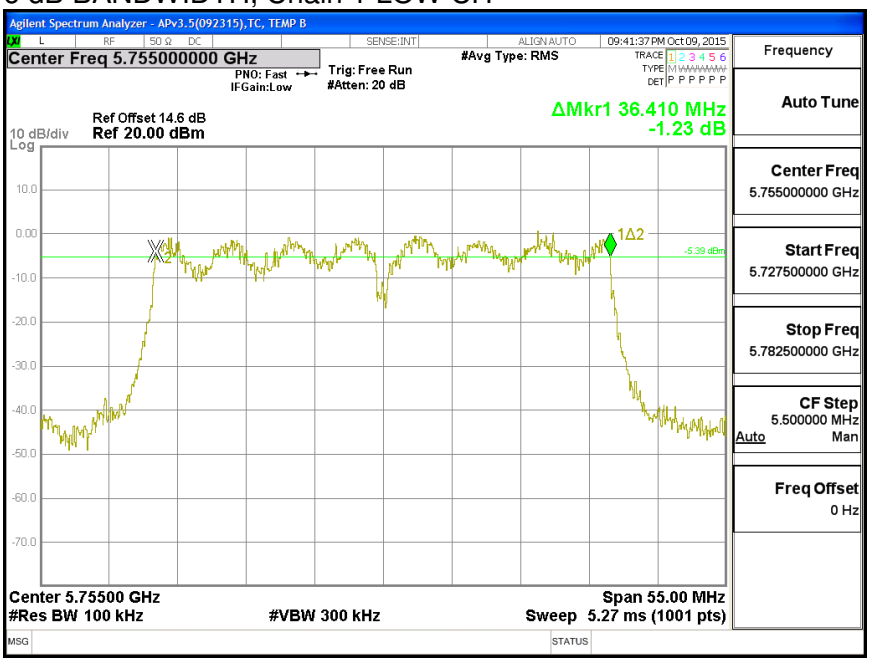
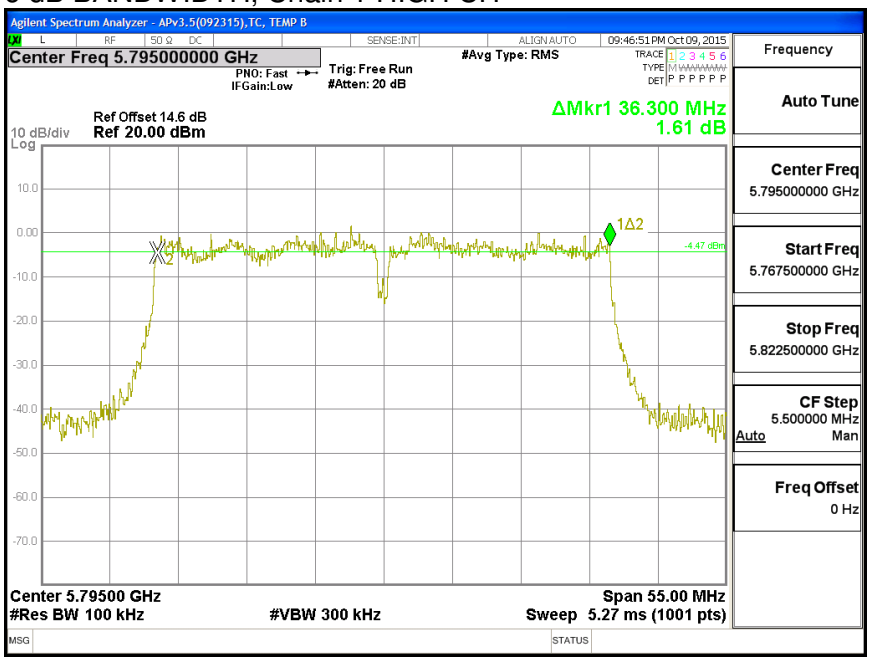
6 dB BANDWIDTH, CHAIN 1

6 dB BANDWIDTH, Chain 1 LOW CH



6 dB BANDWIDTH, Chain 1 HIGH CH



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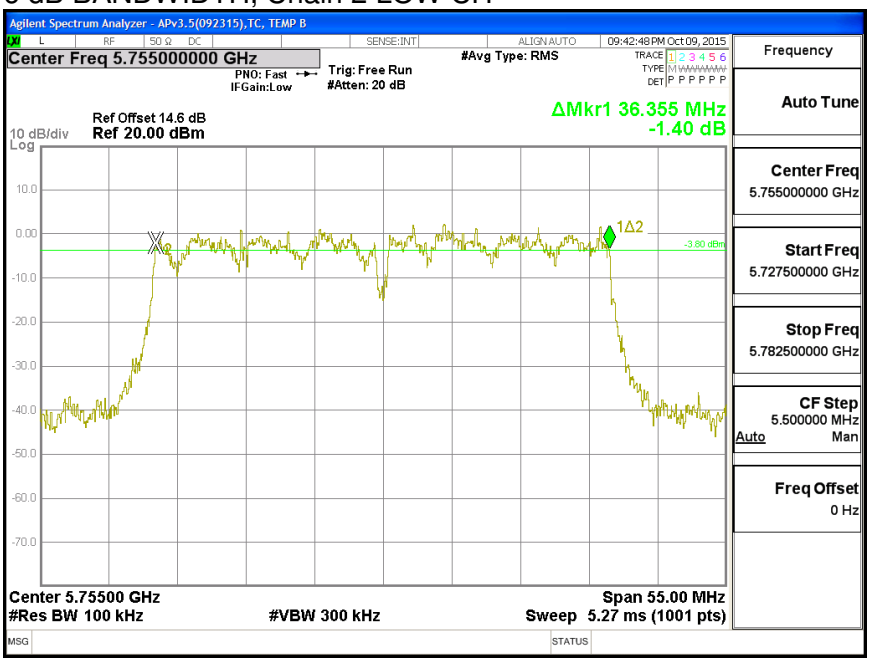
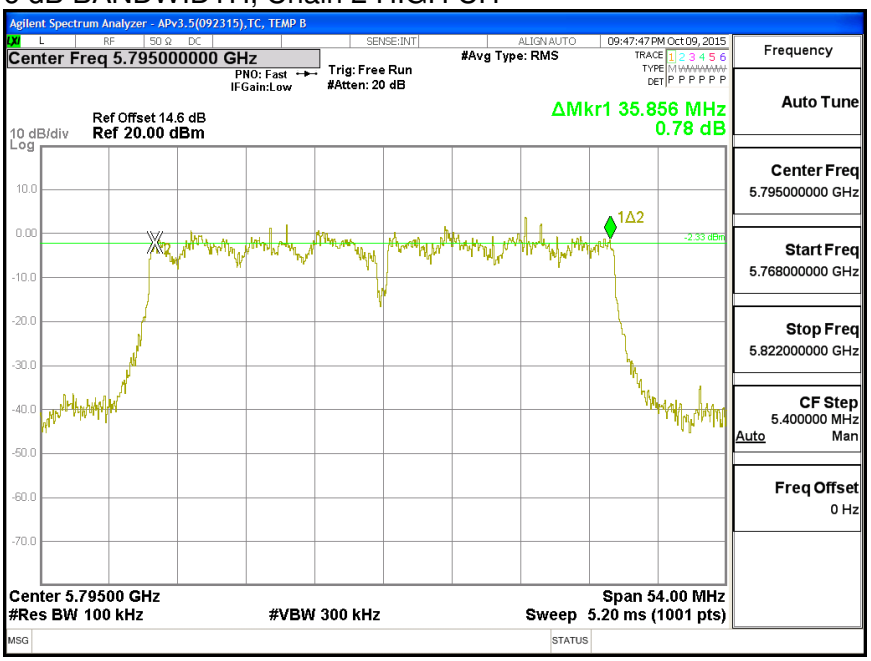
6 dB BANDWIDTH, CHAIN 2

6 dB BANDWIDTH, Chain 2 LOW CH



6 dB BANDWIDTH, Chain 2 HIGH CH



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8.13.2. 26 dB BANDWIDTH

LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5755	39.06	38.82	38.82
High	5795	38.82	39.00	38.76

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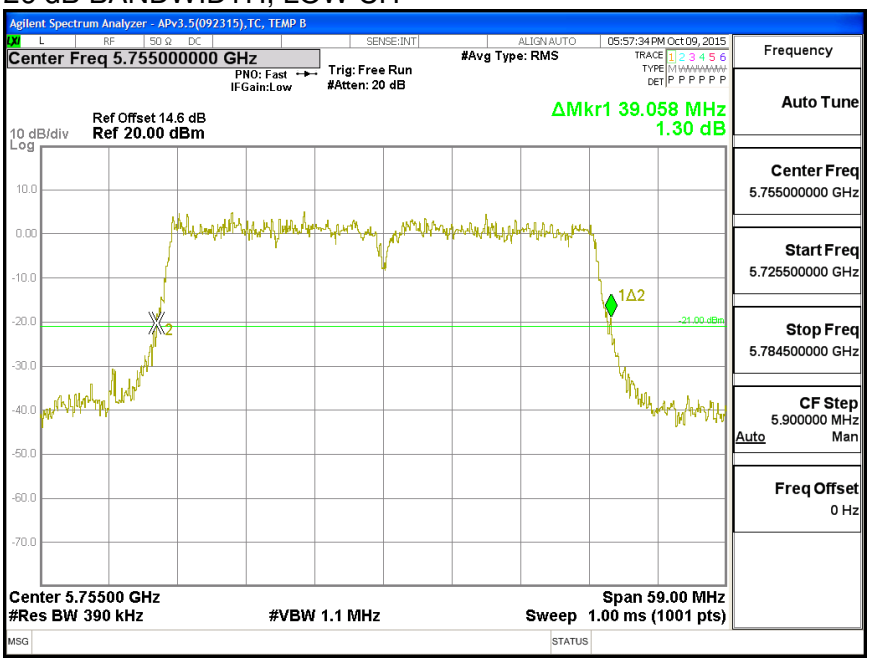
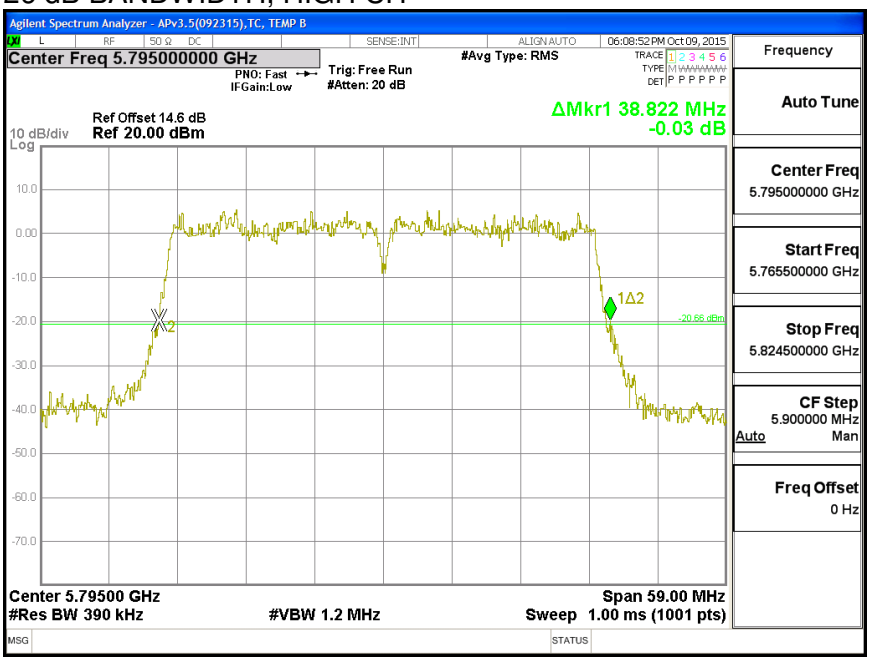
26 dB BANDWIDTH, CHAIN 0

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, HIGH CH



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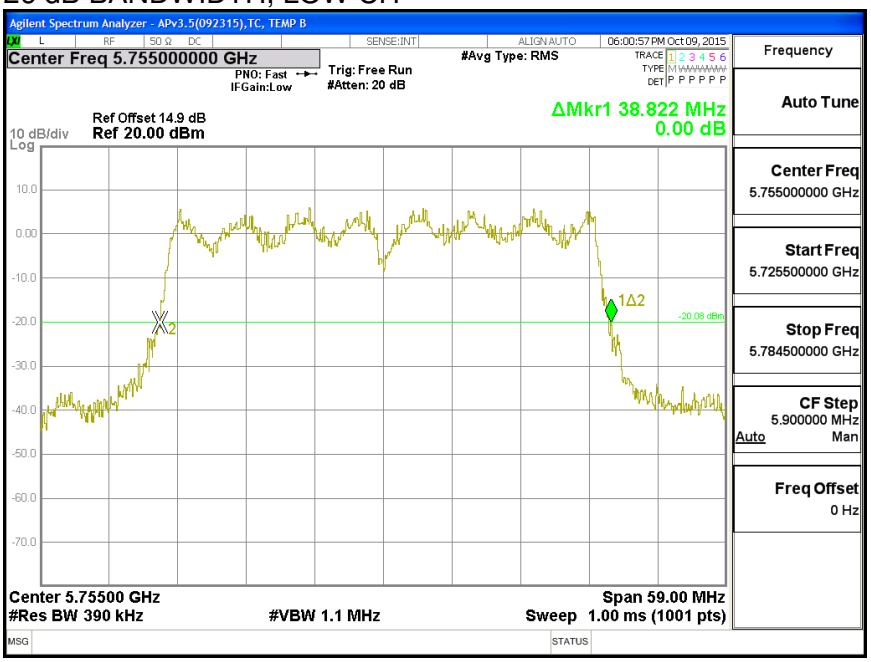
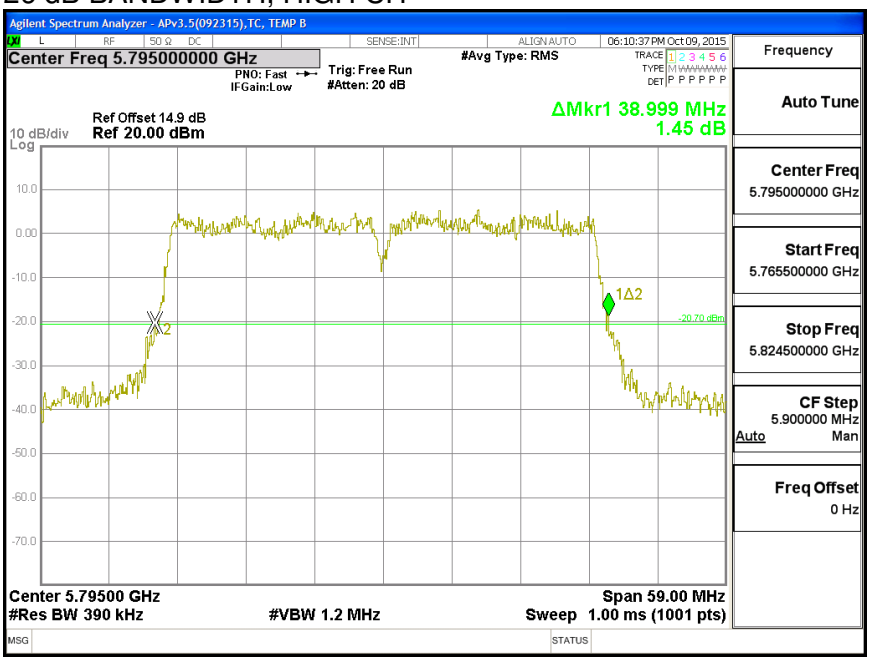
26 dB BANDWIDTH, CHAIN 1

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, HIGH CH



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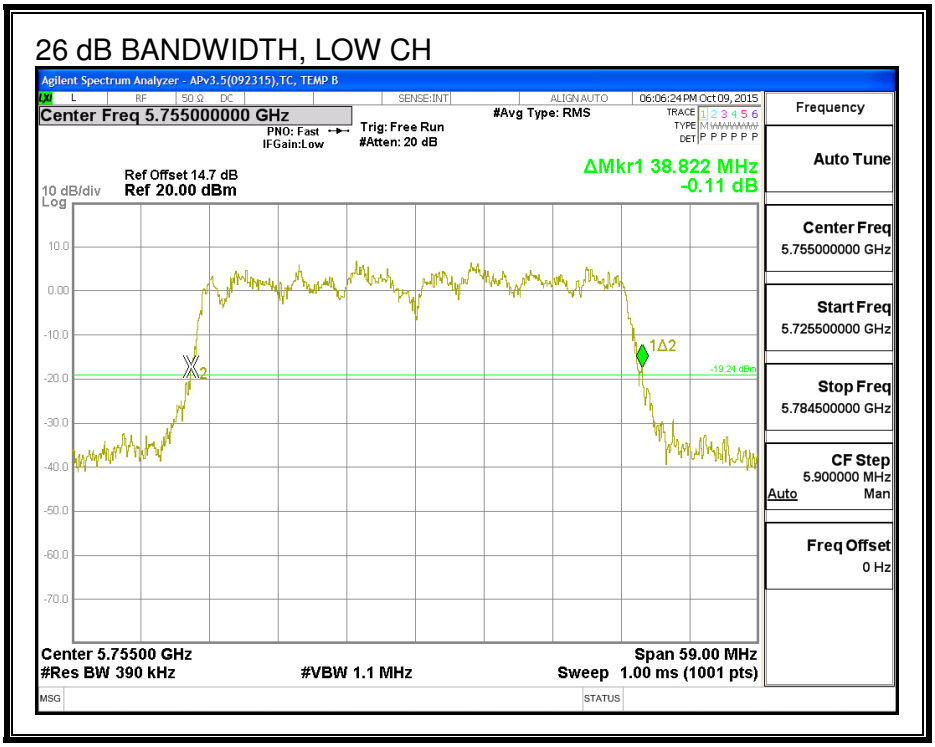
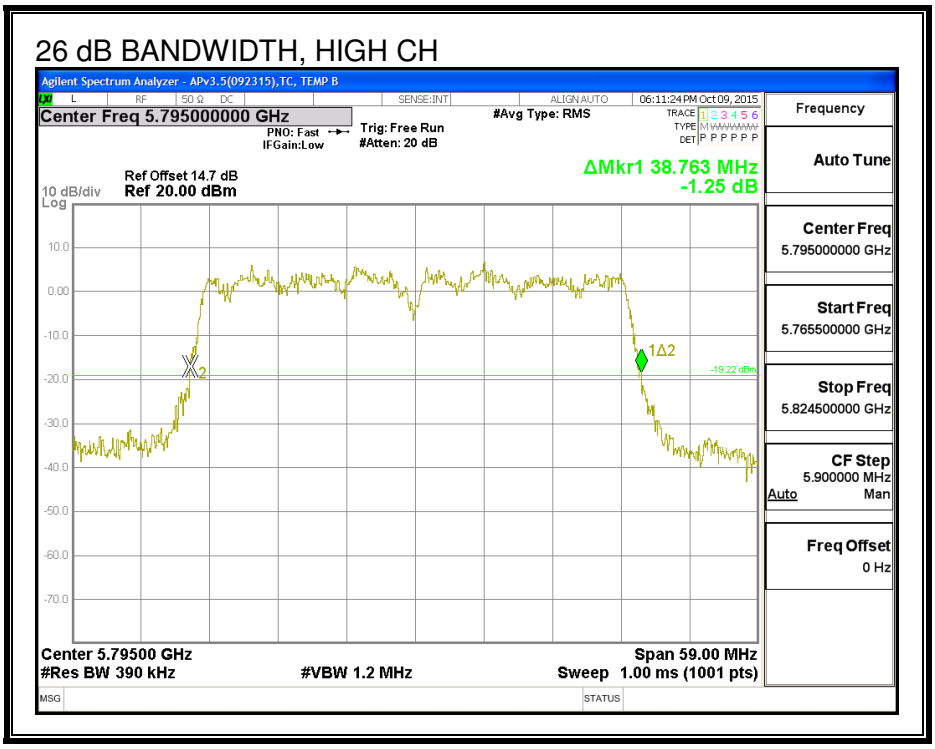
26 dB BANDWIDTH, CHAIN 2





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8.13.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5755	36.268	36.401	36.277
High	5795	36.205	36.485	36.393

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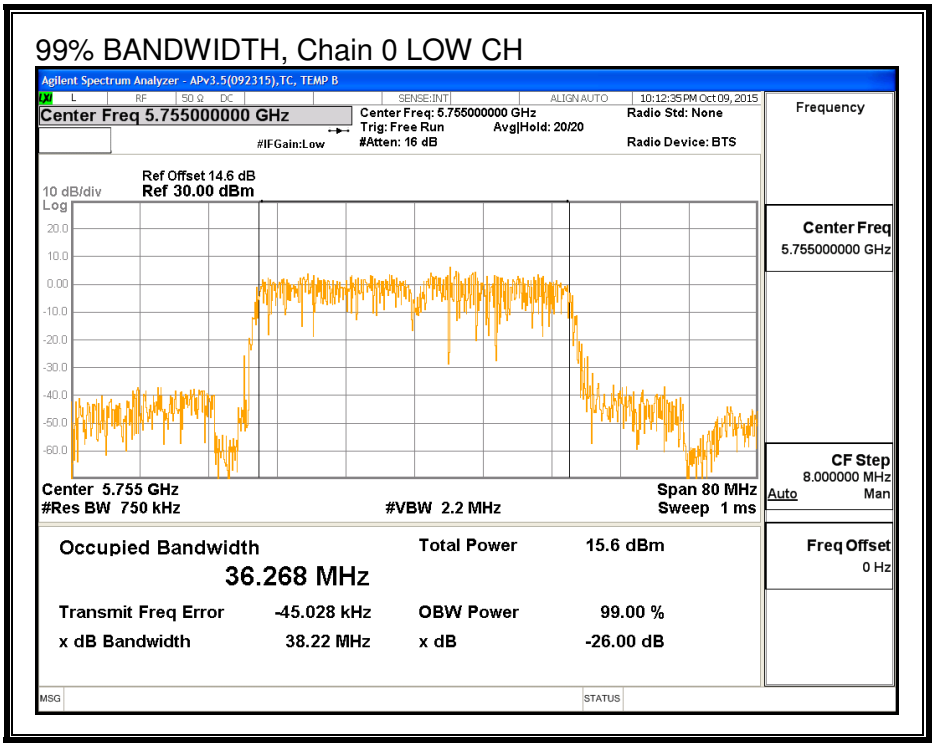
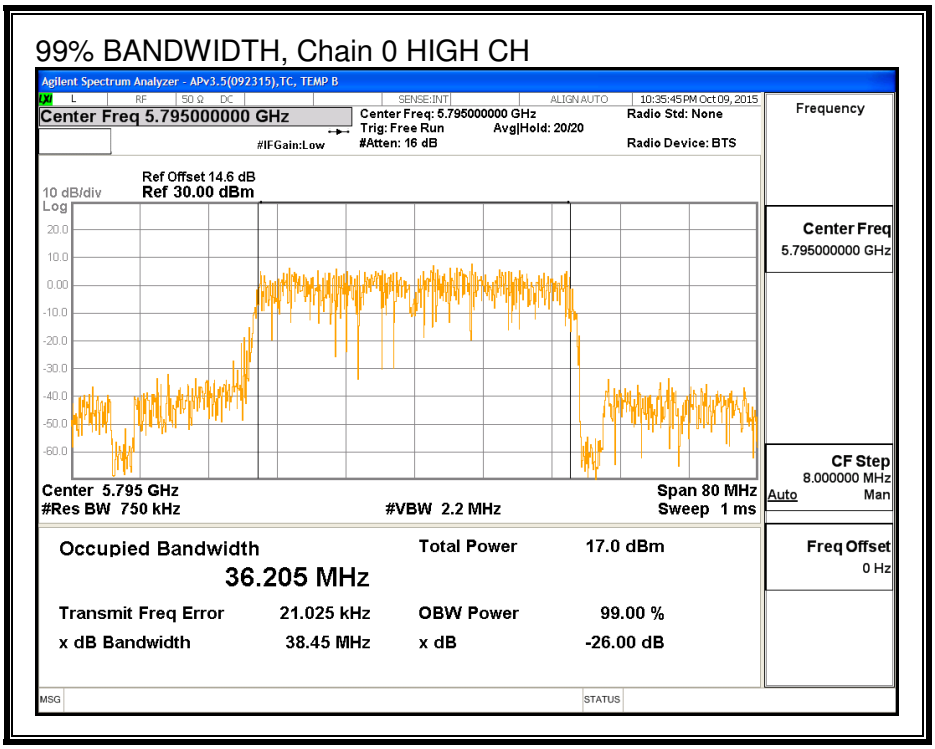
99% BANDWIDTH, CHAIN 0





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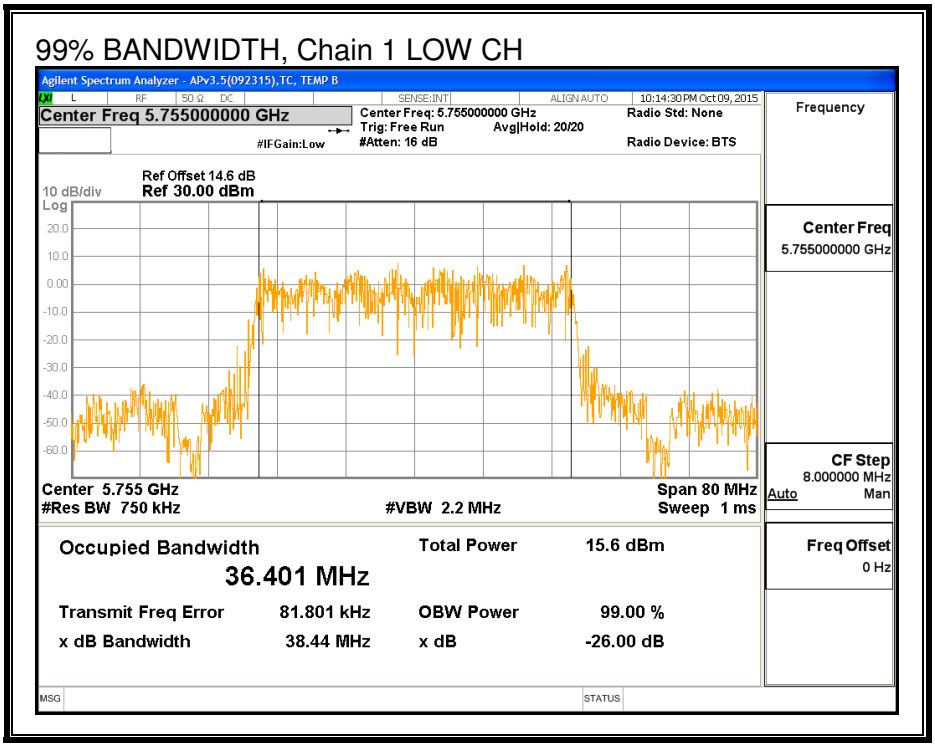
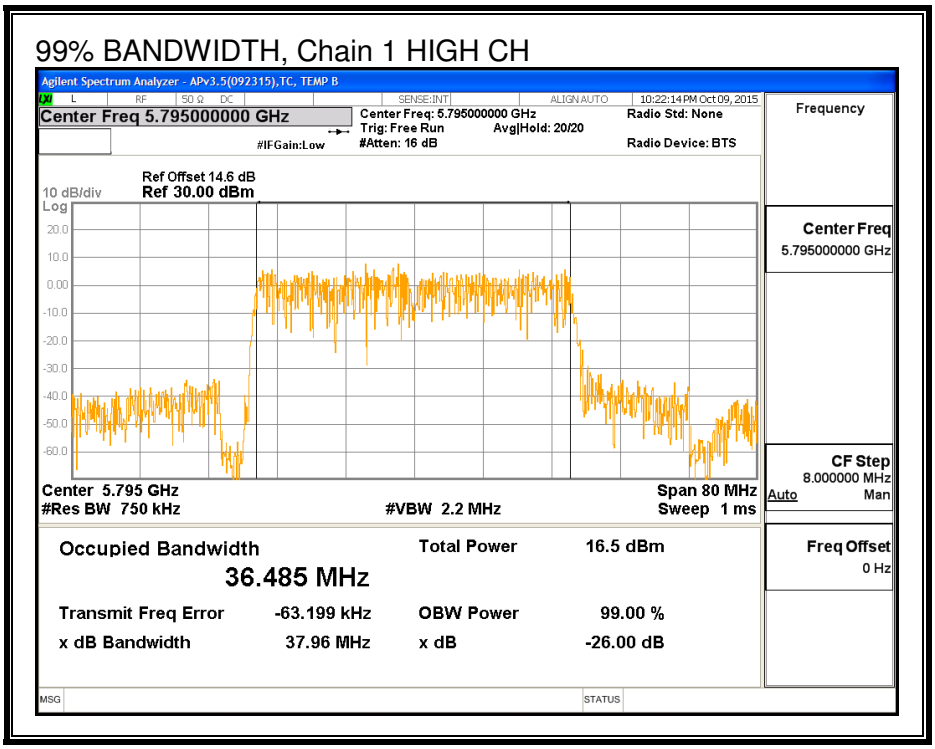
99% BANDWIDTH, CHAIN 1





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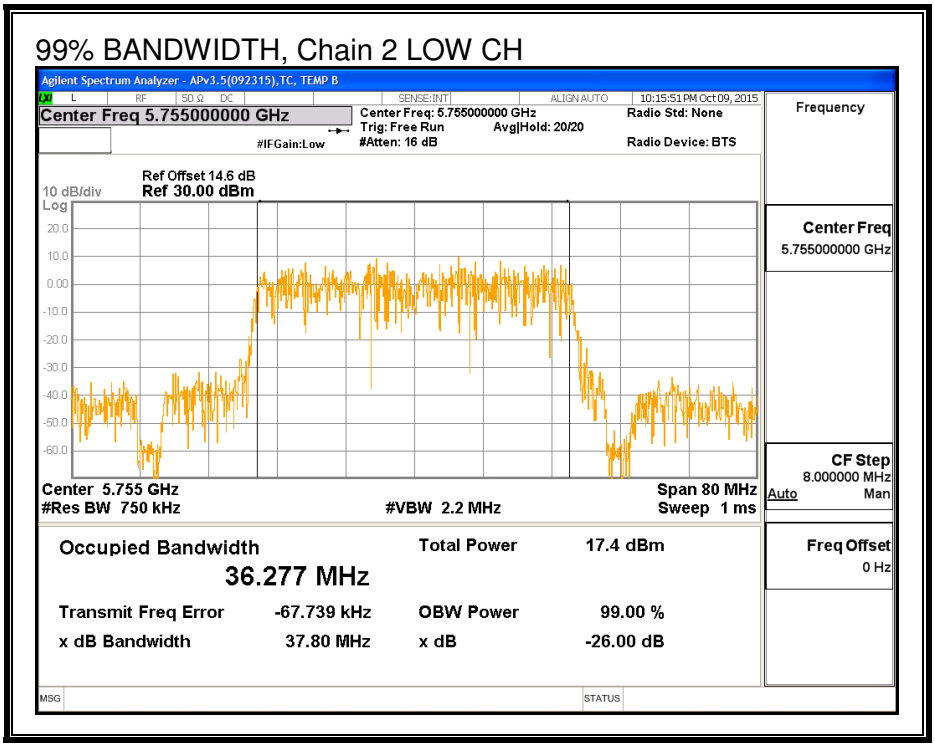
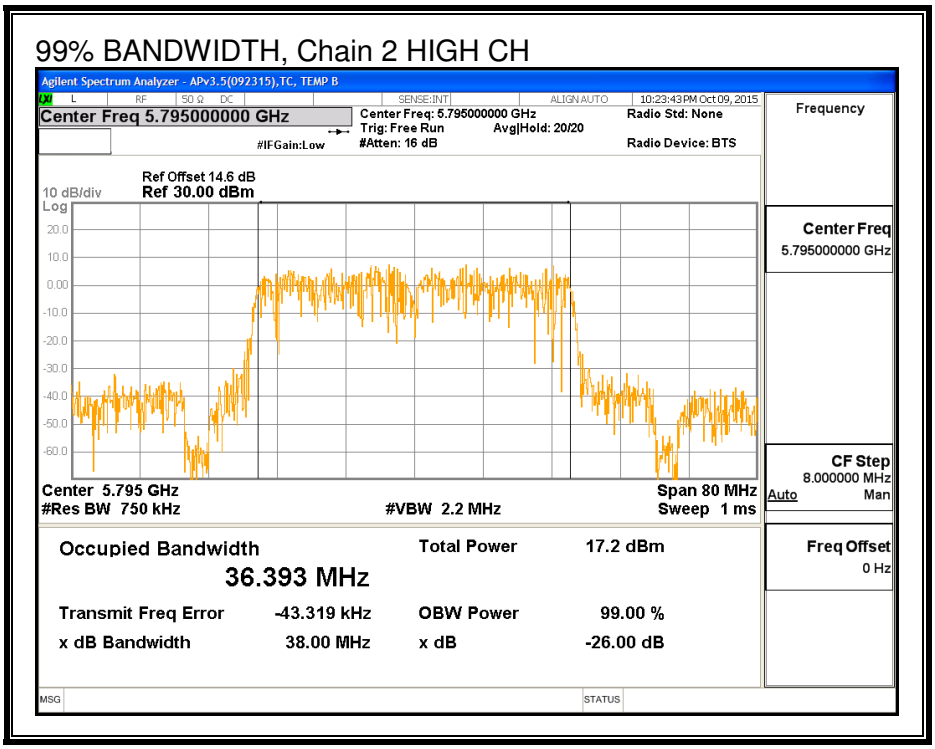
99% BANDWIDTH, CHAIN 2





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8.13.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5755	13.80	13.85	13.83	18.60
High	5795	16.36	16.29	16.25	21.07

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8.13.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	1.90	4.40	3.13

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	3.13	30.00
High	5795	3.13	30.00

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	13.80	13.85	13.83	18.60	30.00	-11.40
High	5795	16.36	16.29	16.25	21.07	30.00	-8.93

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8.13.6. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	1.90	4.40	7.83

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	7.83	28.17
High	5795	7.83	28.17

Duty Cycle CF (dB)	0.00	**Included in Calculations of Corr'd PSD**

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	2.88	2.92	2.88	7.66	28.17	-20.51
High	5795	3.16	3.16	3.13	7.92	28.17	-20.25

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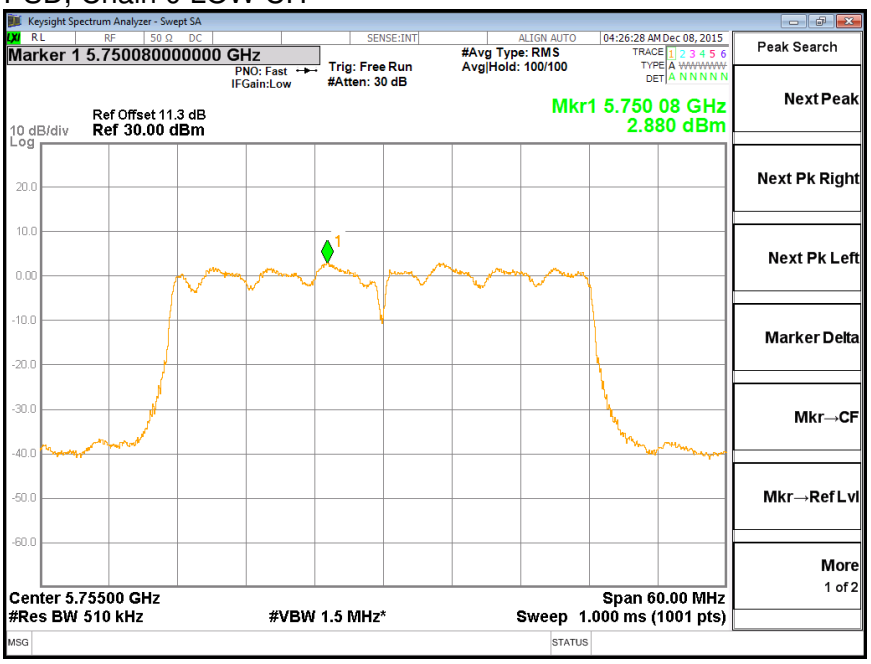
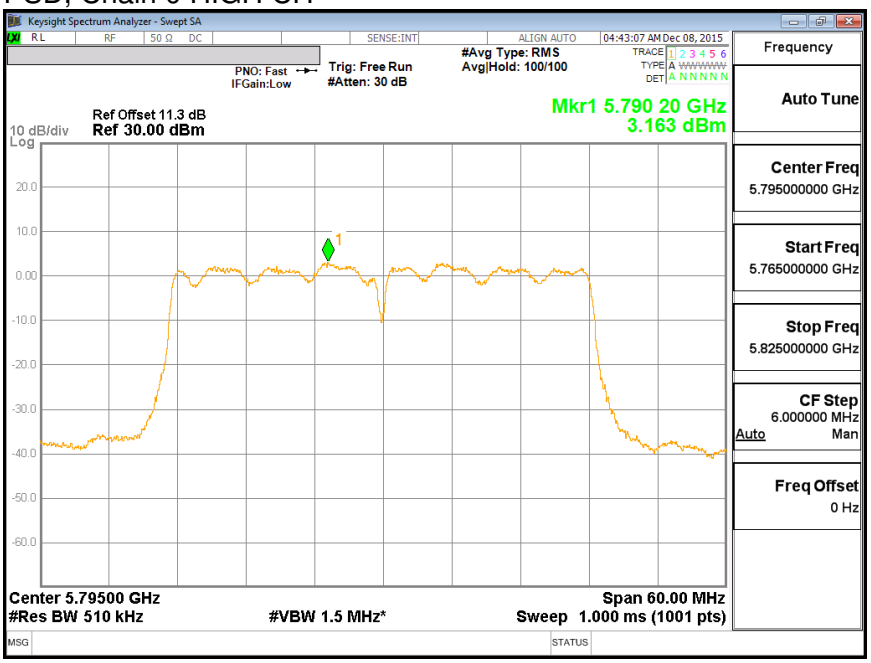
PSD, CHAIN 0

PSD, Chain 0 LOW CH



PSD, Chain 0 HIGH CH



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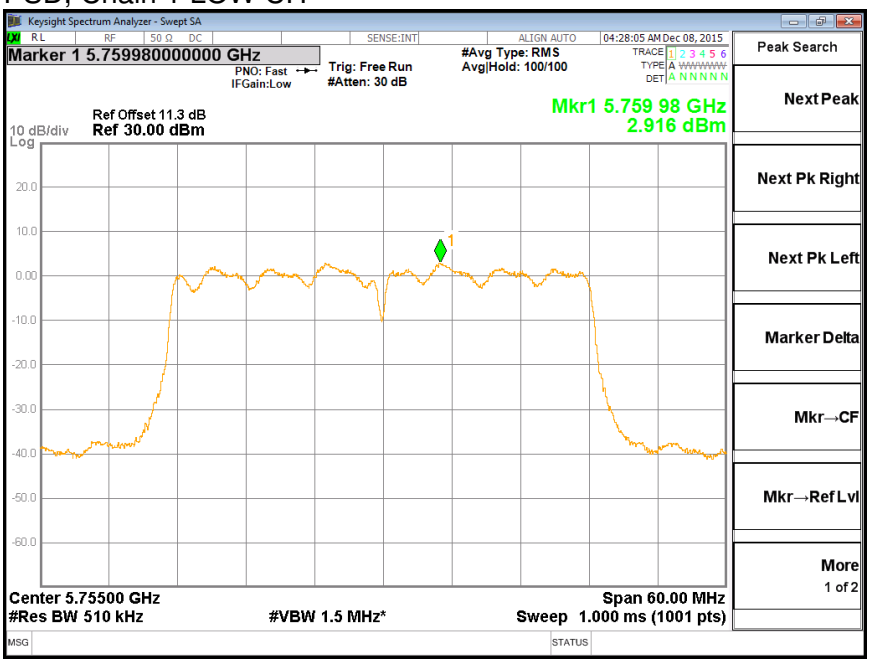
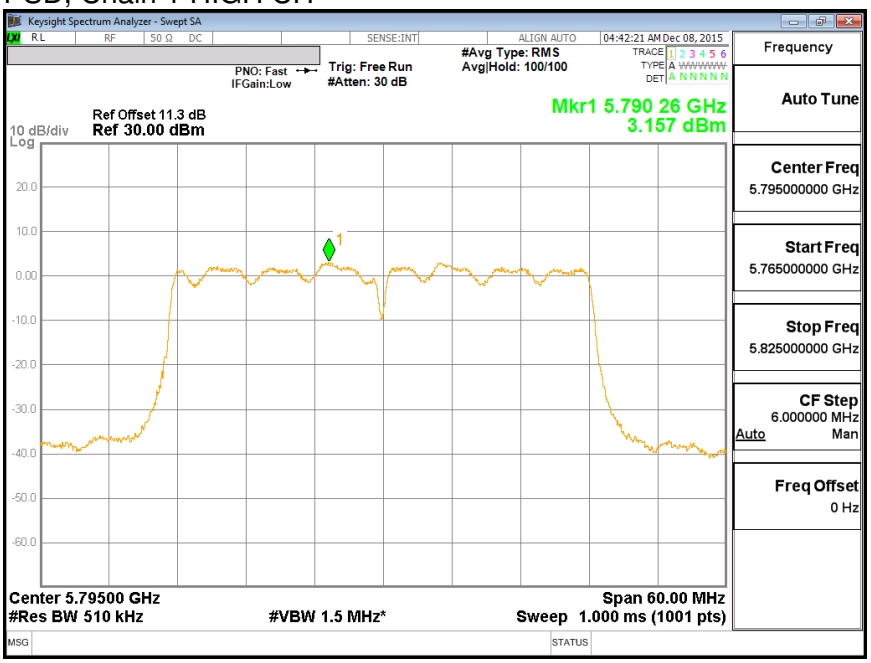
PSD, CHAIN 1

PSD, Chain 1 LOW CH



PSD, Chain 1 HIGH CH



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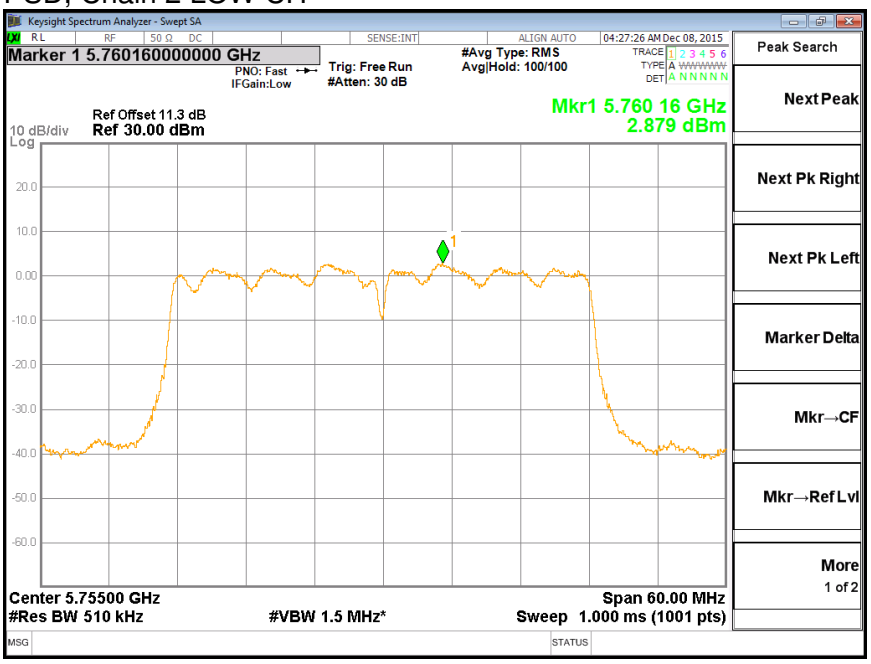
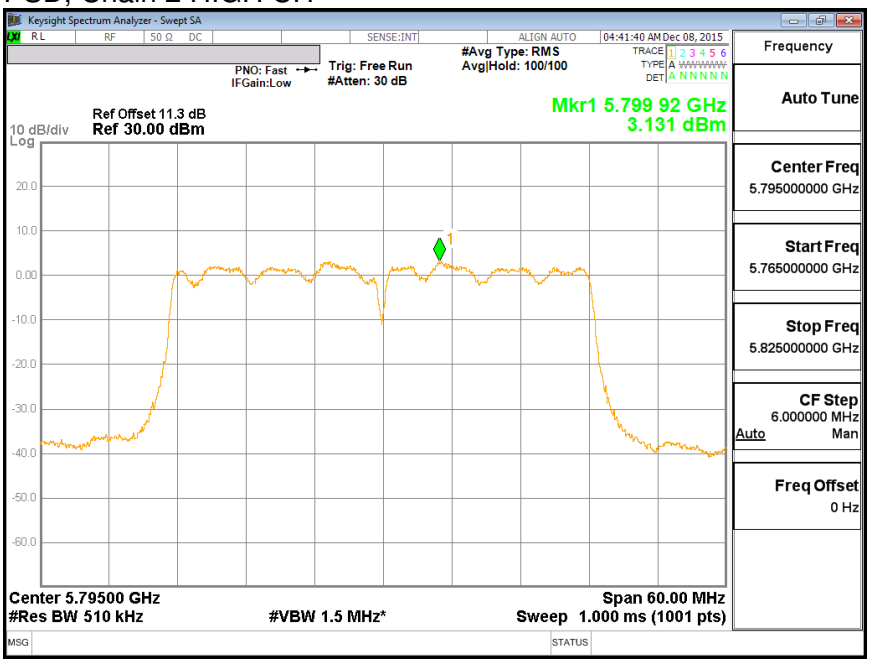
PSD, CHAIN 2

PSD, Chain 2 LOW CH



PSD, Chain 2 HIGH CH



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8.14. 802.11n HT40 3TX STBC MODE IN THE 5.8 GHz BAND

NOTE: Covered by 802.11n HT40 3TX CDD.

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8.15. 802.11n HT40 3TX BF MODE IN THE 5.8 GHz BAND

8.15.1. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Low	5755	12.11	12.33	12.12	16.96
High	5795	15.27	15.15	15.24	19.99

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8.15.2. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	1.90	4.40	7.83

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	7.83	28.17
High	5795	7.83	28.17

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	12.11	12.33	12.12	16.96	28.17	-11.21
High	5795	15.27	15.15	15.24	19.99	28.17	-8.18

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8.15.3. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is the same for each chain. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	1.90	4.40	7.83

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	7.83	28.17
High	5795	7.83	28.17

Duty Cycle CF (dB)	0.11	**Included in Calculations of Corr'd PSD**

PPSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-2.86	-3.26	-3.05	1.83	28.17	-26.34
High	5795	1.73	1.53	1.70	6.53	28.17	-21.64

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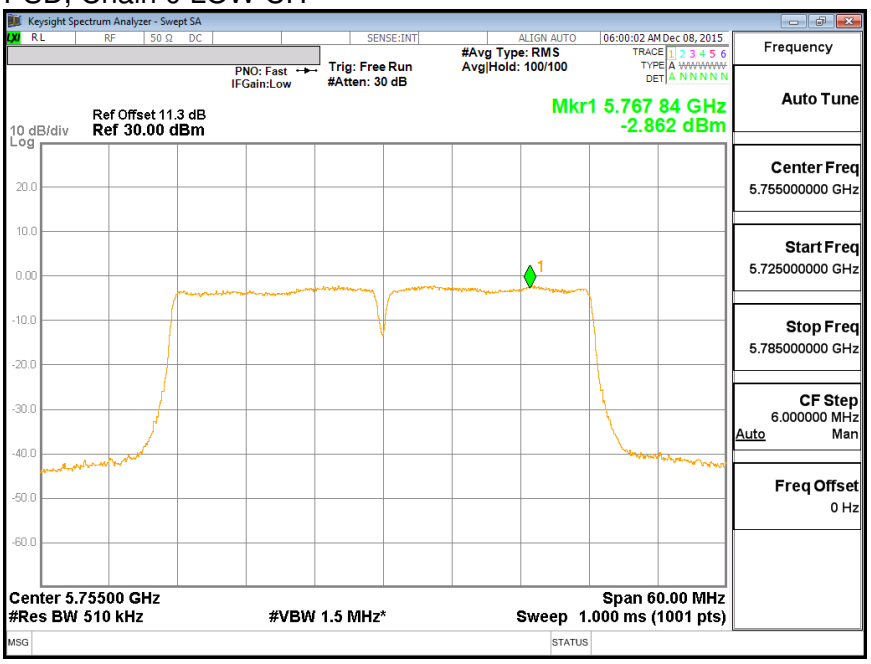
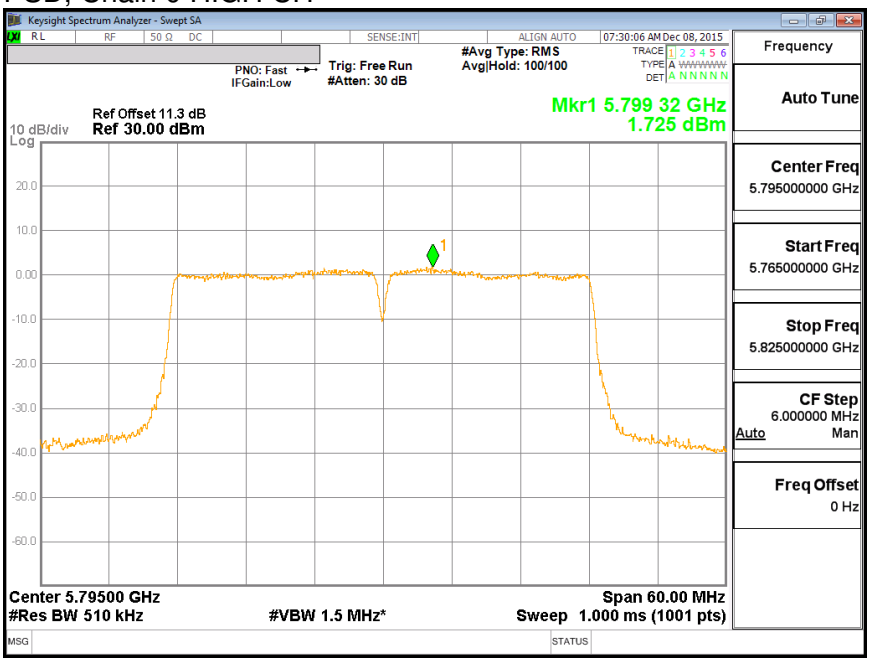
PSD, CHAIN 0

PSD, Chain 0 LOW CH



PSD, Chain 0 HIGH CH



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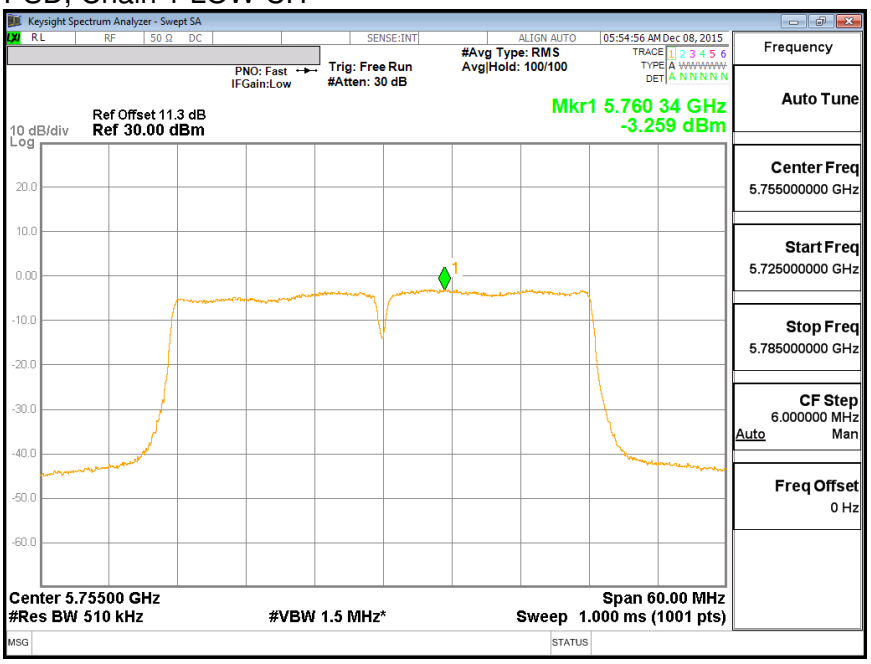
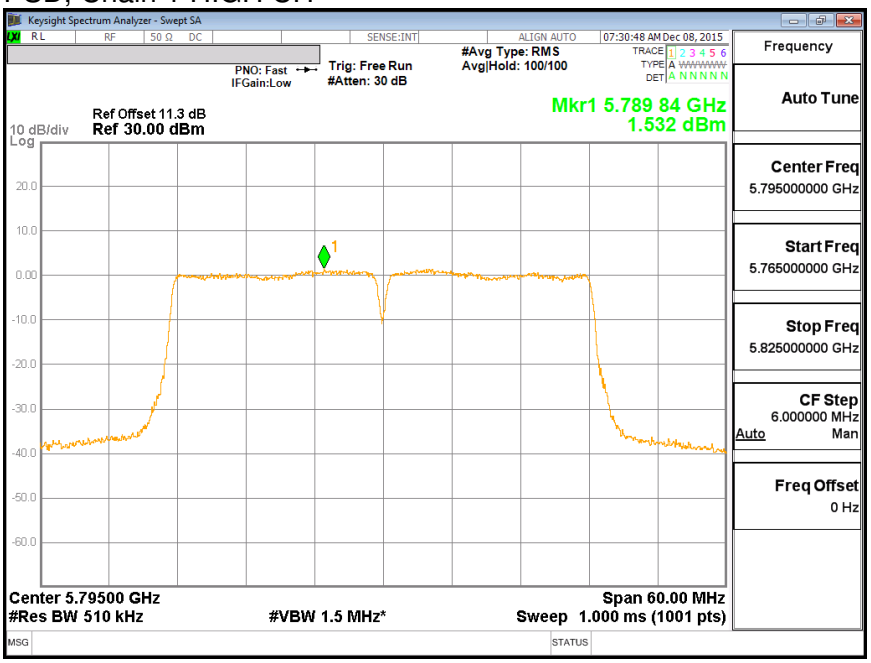
PSD, CHAIN 1

PSD, Chain 1 LOW CH



PSD, Chain 1 HIGH CH



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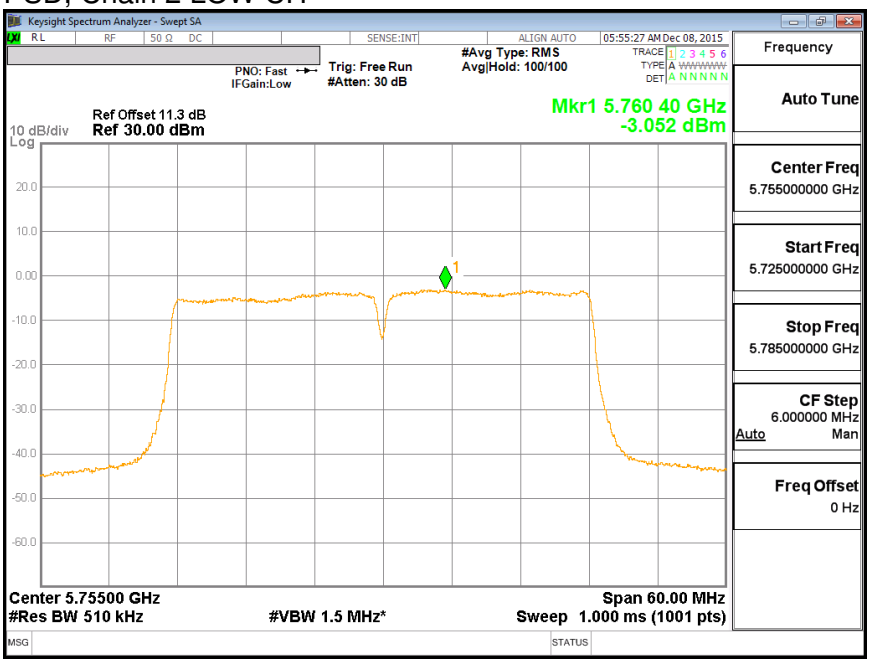
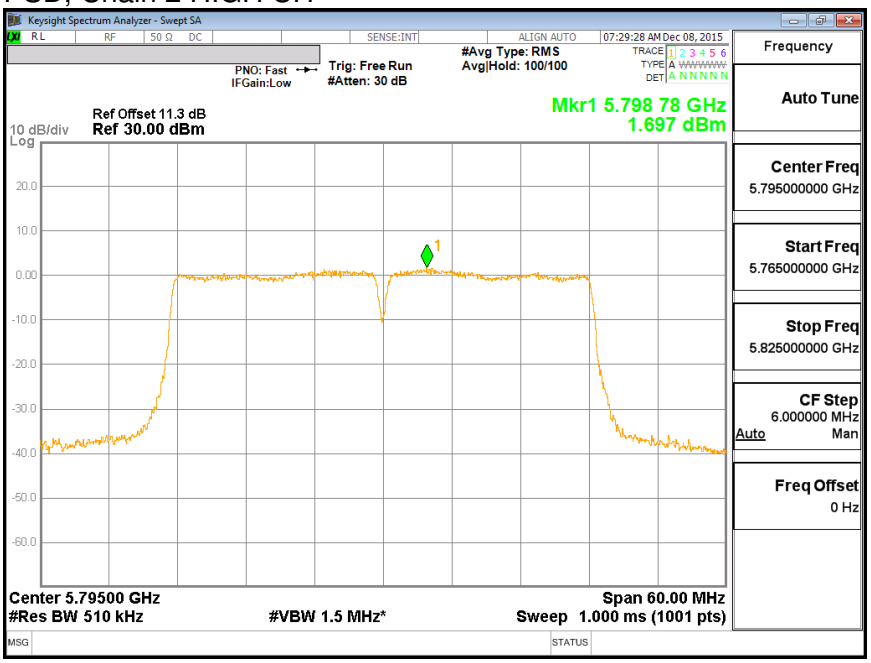
PSD, CHAIN 2

PSD, Chain 2 LOW CH



PSD, Chain 2 HIGH CH



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8.16. 802.11ac HT80 1TX MODE IN THE 5.8 GHz BAND

8.16.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

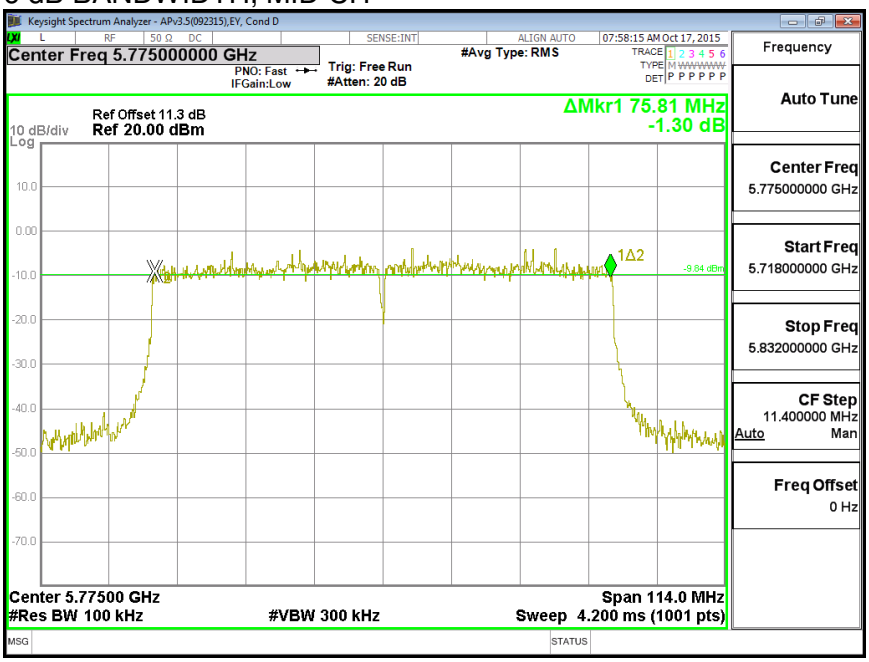
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	75.81	0.5

6 dB BANDWIDTH

6 dB BANDWIDTH, MID CH



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8.16.2. 26 dB BANDWIDTH

LIMITS

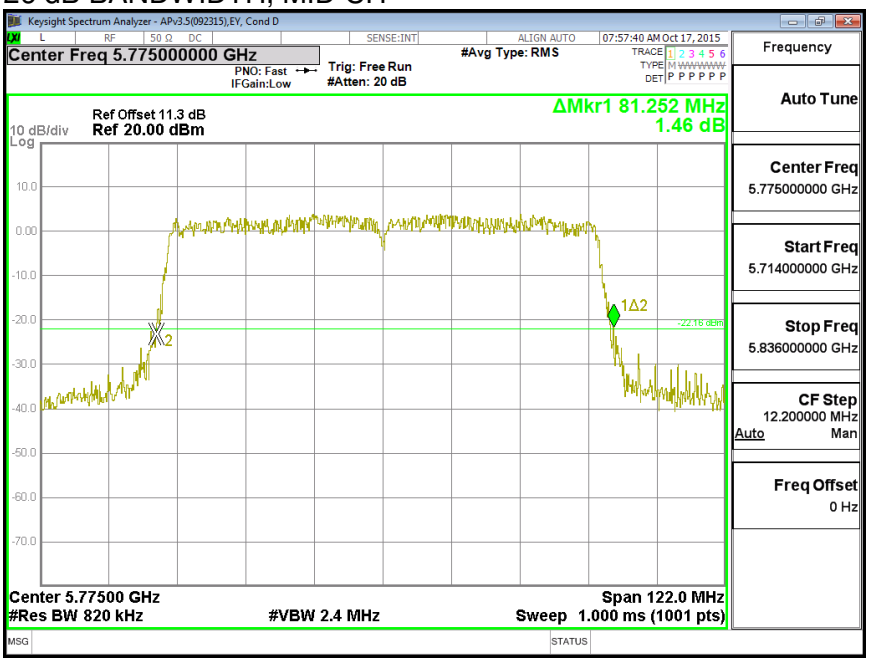
None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5775	81.25

26 dB BANDWIDTH

26 dB BANDWIDTH, MID CH



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8.16.3. 99% BANDWIDTH

LIMITS

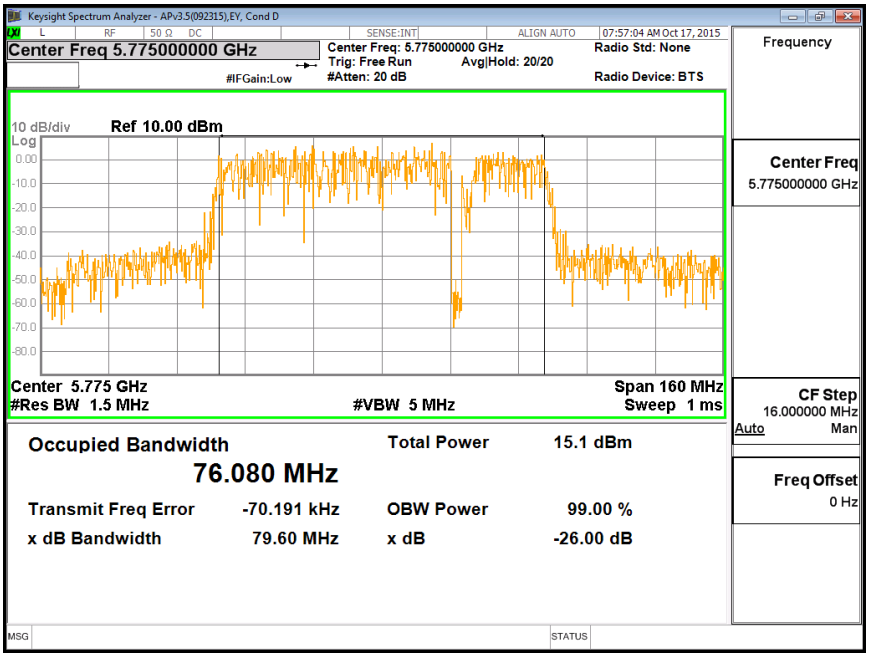
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5775	76.080

99% BANDWIDTH

BANDWIDTH MID CH



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8.16.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Mid	5775	15.50

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8.16.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	4.40	30.00

Output Power Results

Channel	Frequency (MHz)	Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	15.50	15.50	30.00	-14.50

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8.16.6. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	4.40	30.00

Duty Cycle CF (dB)	0.12	Included in Calculations of Corr'd PSD

PSD Results

Channel	Frequency (MHz)	Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-3.45	-3.33	30.00	-33.33

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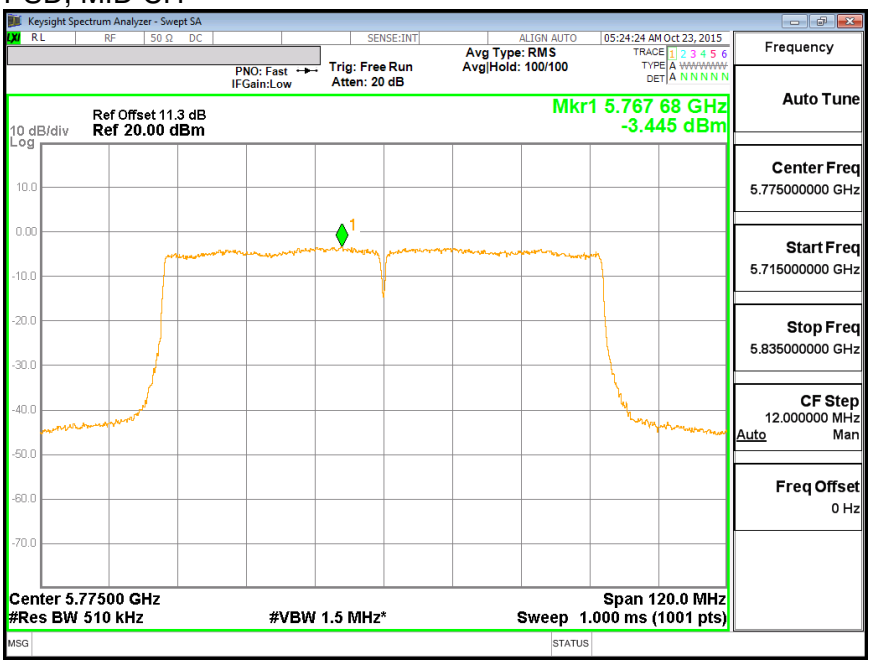
PSD

PSD, MID CH



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8.17. 802.11ac HT80 2Tx CDD MODE IN THE 5.8 GHz BAND

8.17.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 2 (MHz)	Minimum Limit (MHz)
Mid	5775	75.81	76.02	0.5

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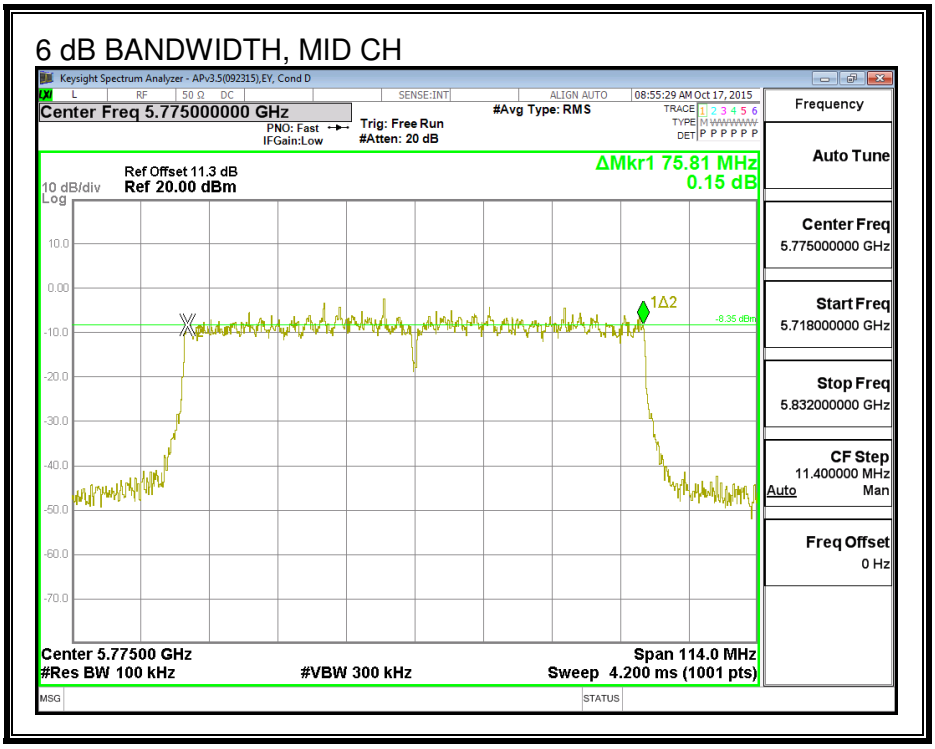
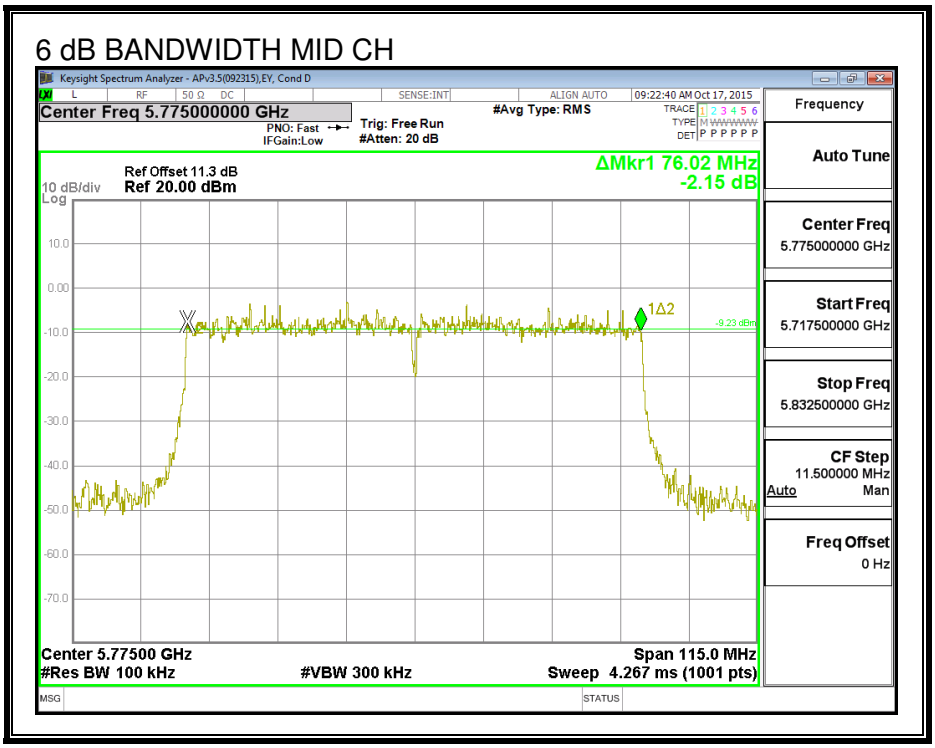
6 dB BANDWIDTH, CHAIN 0



6 DB BANDWIDTH, CHAIN 2



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8.17.2. 26 dB BANDWIDTH

LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 2 (MHz)
Mid	5775	80.44	81.13

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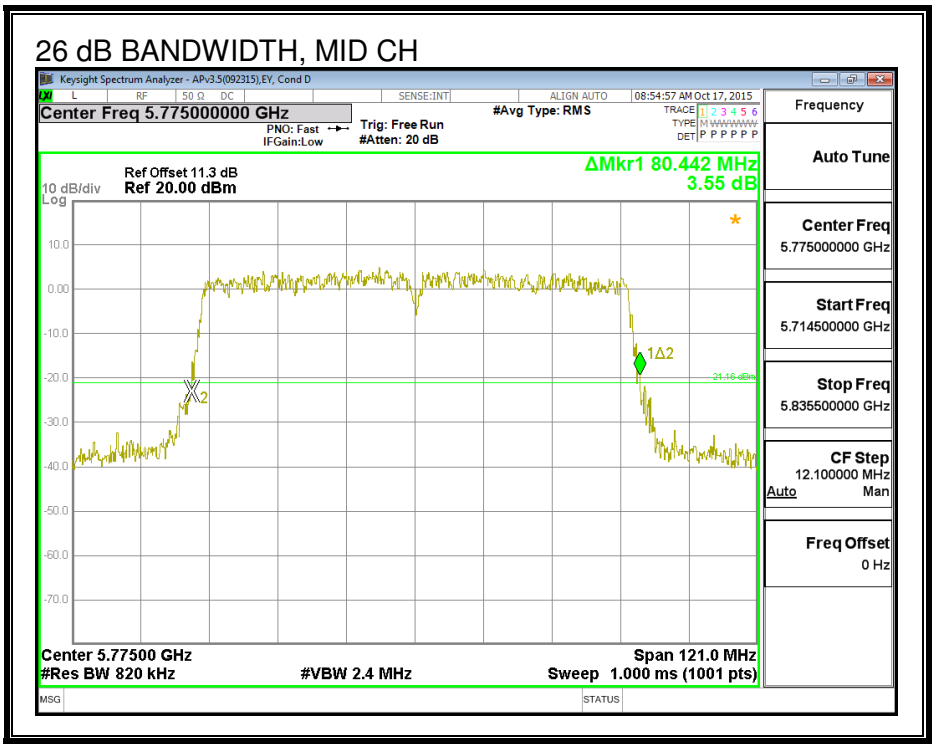
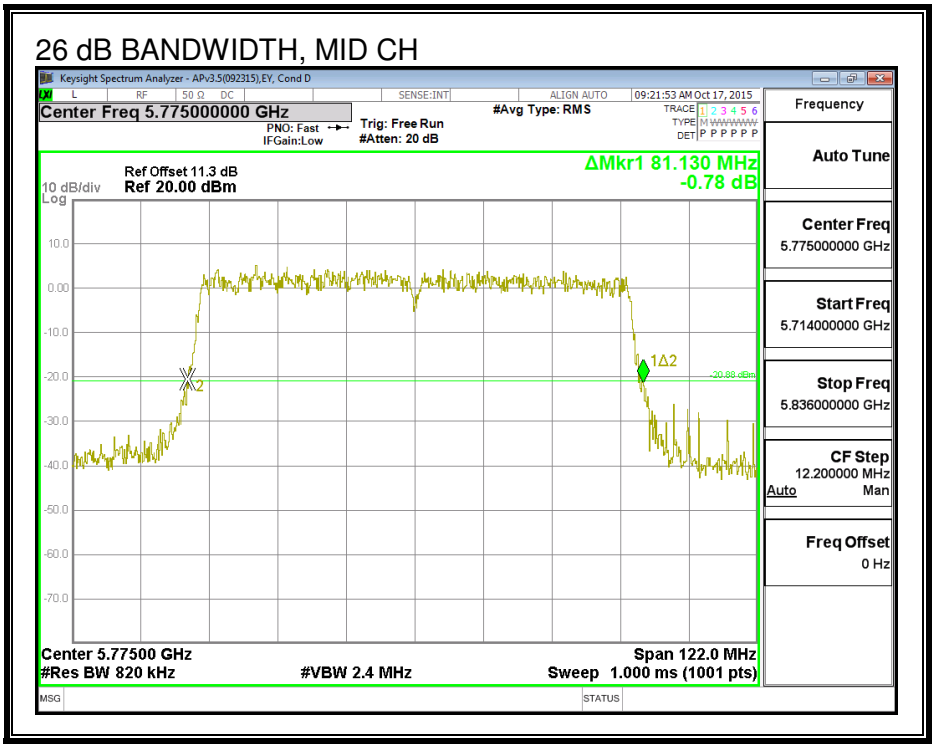
26 dB BANDWIDTH, CHAIN 0



26 dB BANDWIDTH, CHAIN 2



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8.17.3. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 2 (MHz)
Mid	5775	76.135	75.847

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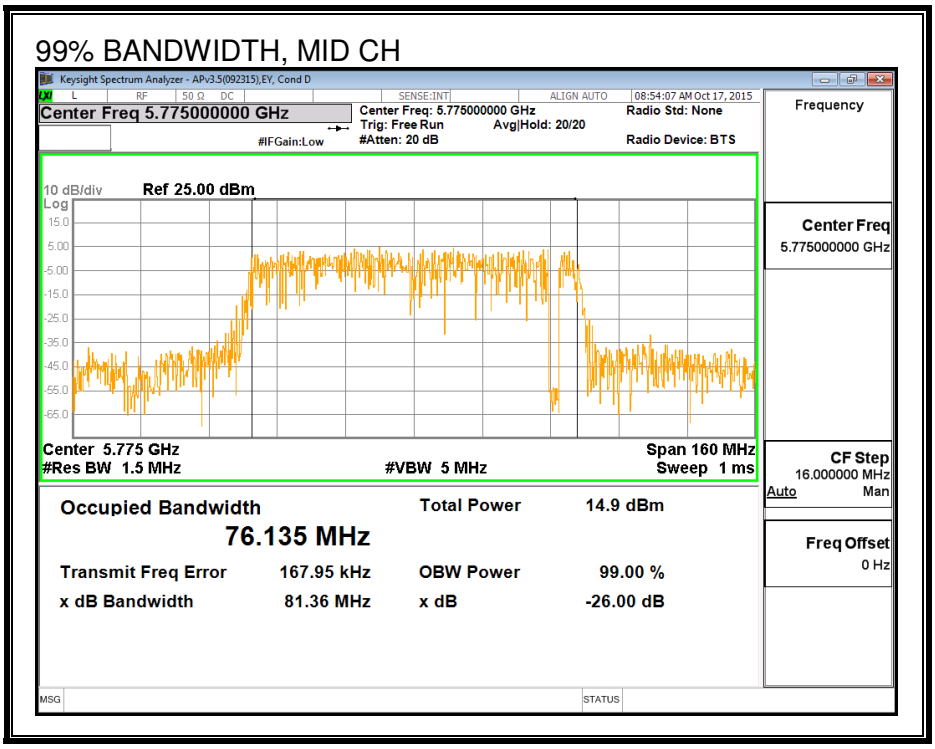
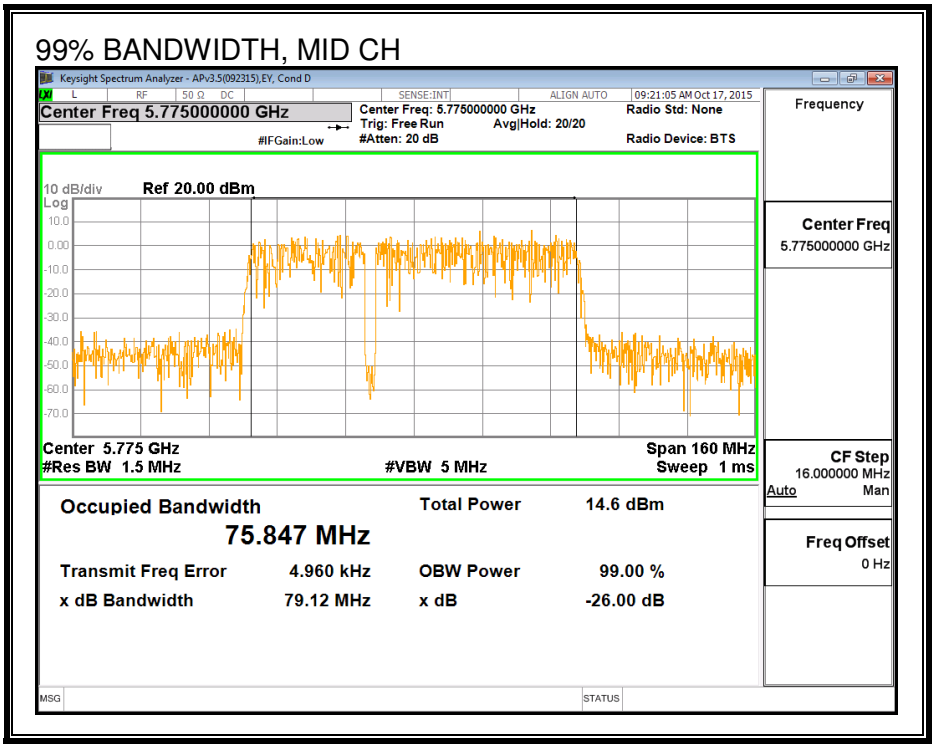
99% BANDWIDTH, CHAIN 0



99% BANDWIDTH, CHAIN 2



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8.17.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Mid	5775	15.02	14.96	18.00

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8.17.5. OUTPUT POWER

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Procedure

Measurements perform using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

DIRECTIONAL ANTENNA GAIN

The TX chains are uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	4.40	3.63

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	3.63	30.00

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	15.02	14.96	18.00	30.00	-12.00

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8.17.6. PSD

LIMITS

FCC §15.407 (a) (3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

DIRECTIONAL ANTENNA GAIN

The TX chains are correlated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.70	4.40	6.60

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RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	6.60	29.40

Duty Cycle CF (dB)	0.11	**Included in Calculations of Corr'd PSD**

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-2.53	-2.68	0.52	29.40	-28.88

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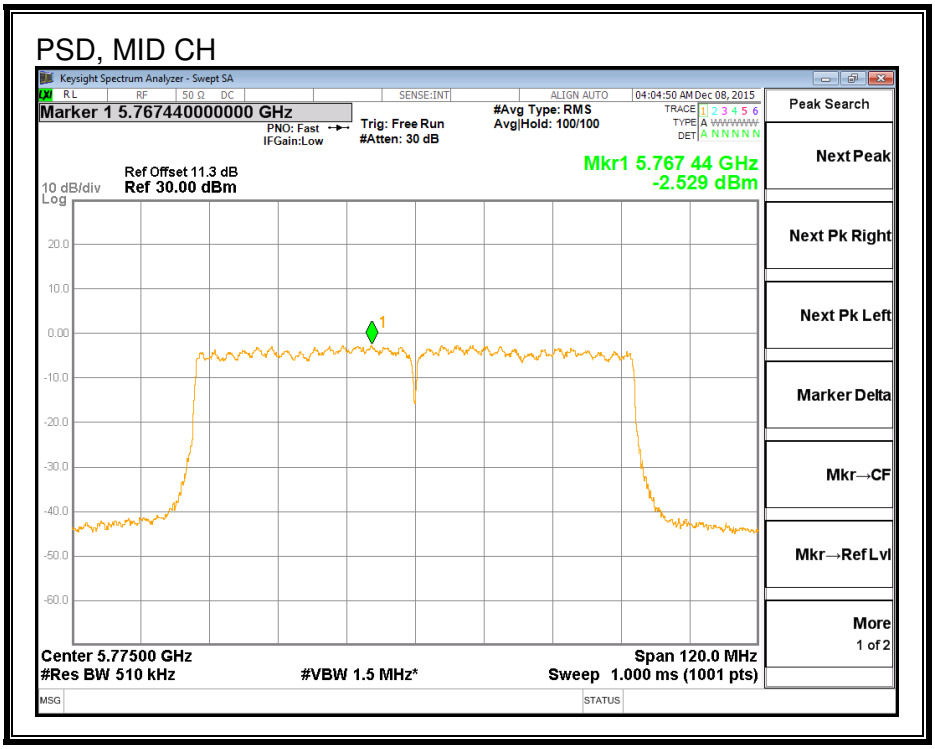
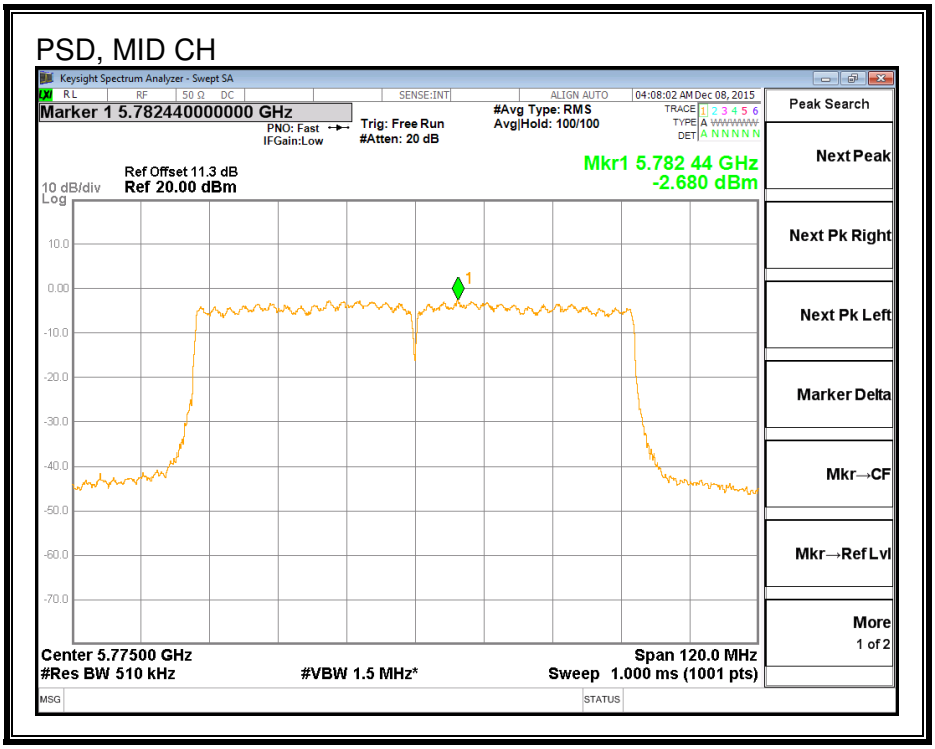
PSD, CHAIN 0



PSD, CHAIN 2



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8.18. 802.11ac HT80 2TX STBC MODE IN THE 5.8 GHz BAND

NOTE: Covered by 802.11ac HT80 2TX CDD.

8.19. 802.11ac HT80 2Tx BF MODE IN THE 5.8 GHz BAND

8.19.1. AVERAGE POWER

LIMITS

None; for reporting purposes only.

Test Procedure

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 2 Power (dBm)	Total Power (dBm)
Mid	5775	11.55	11.91	14.74

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