

RESULTS

Antenna Gain and Limits

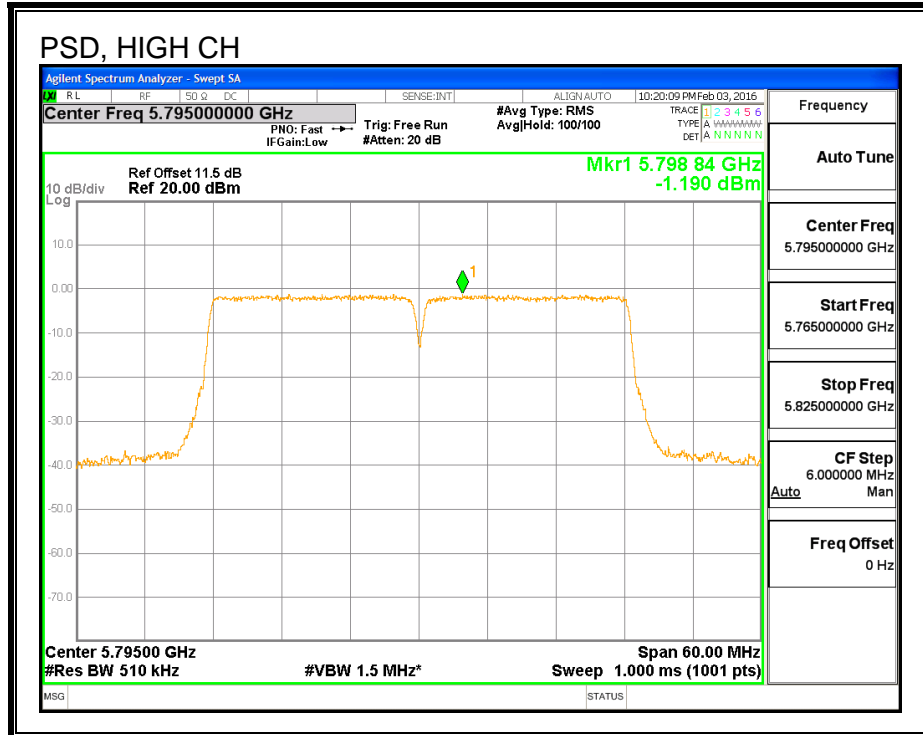
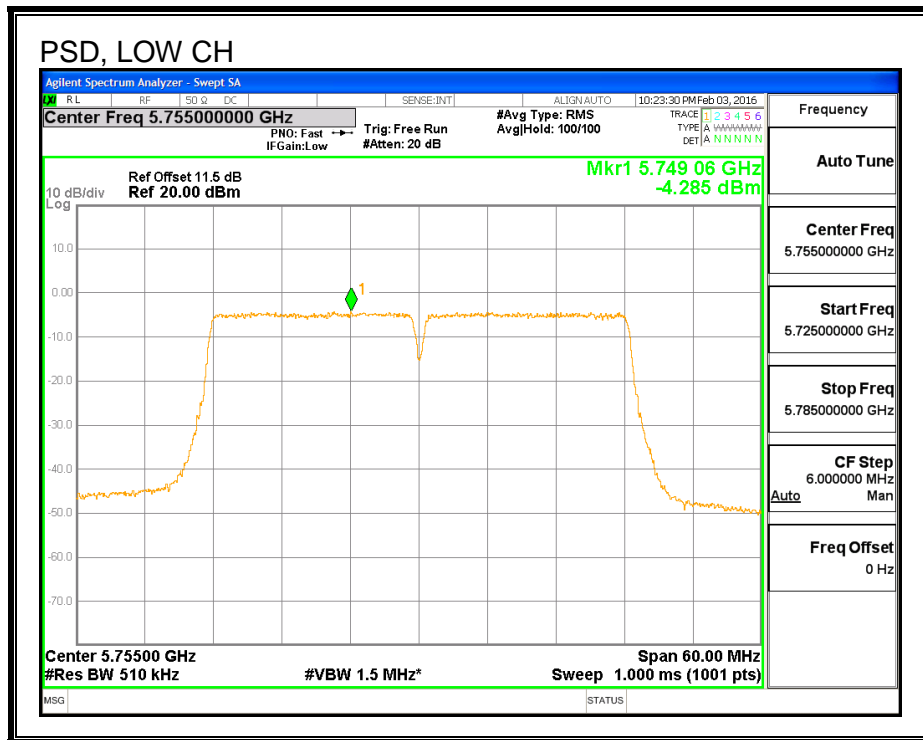
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	3.92	30.00
High	5795	3.92	30.00

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

Channel	Frequency (MHz)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-4.29	-4.29	30.00	-34.29
High	5795	-1.19	-1.19	30.00	-31.19

PSD



8.122. 802.11n HT40 ANTENNA B+A CDD MODE IN THE 5.8 GHz BAND

8.122.1.6 dB BANDWIDTH

LIMITS

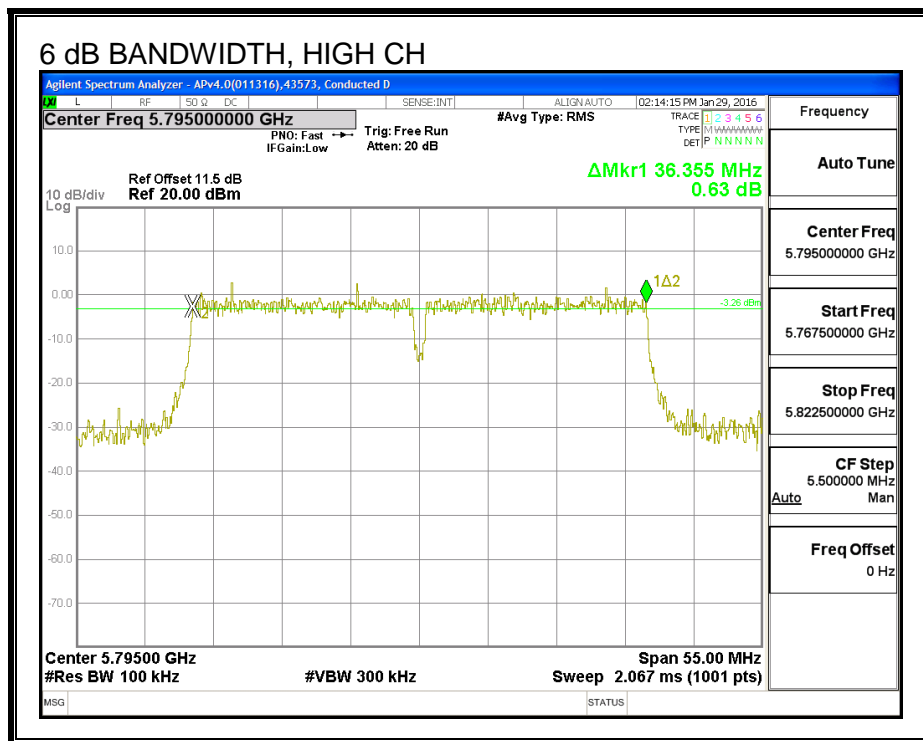
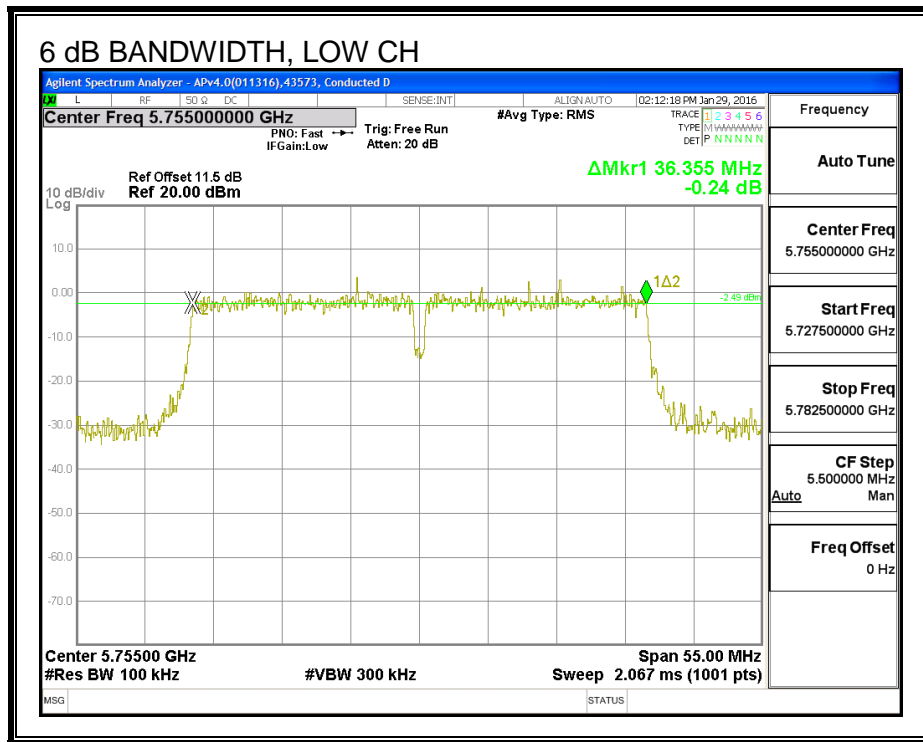
FCC §15.407 (e)

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

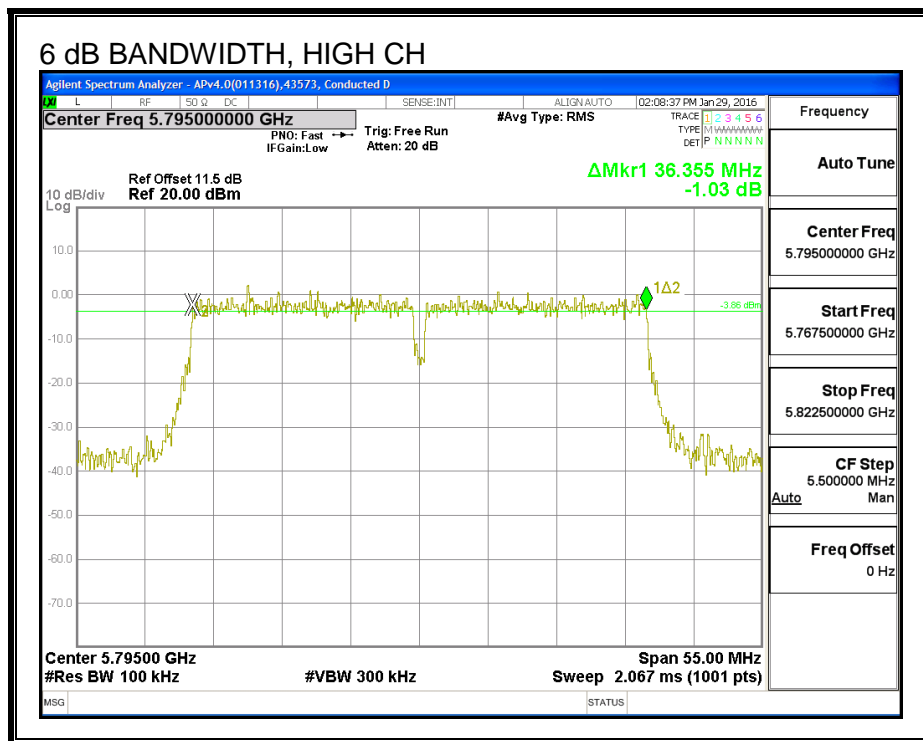
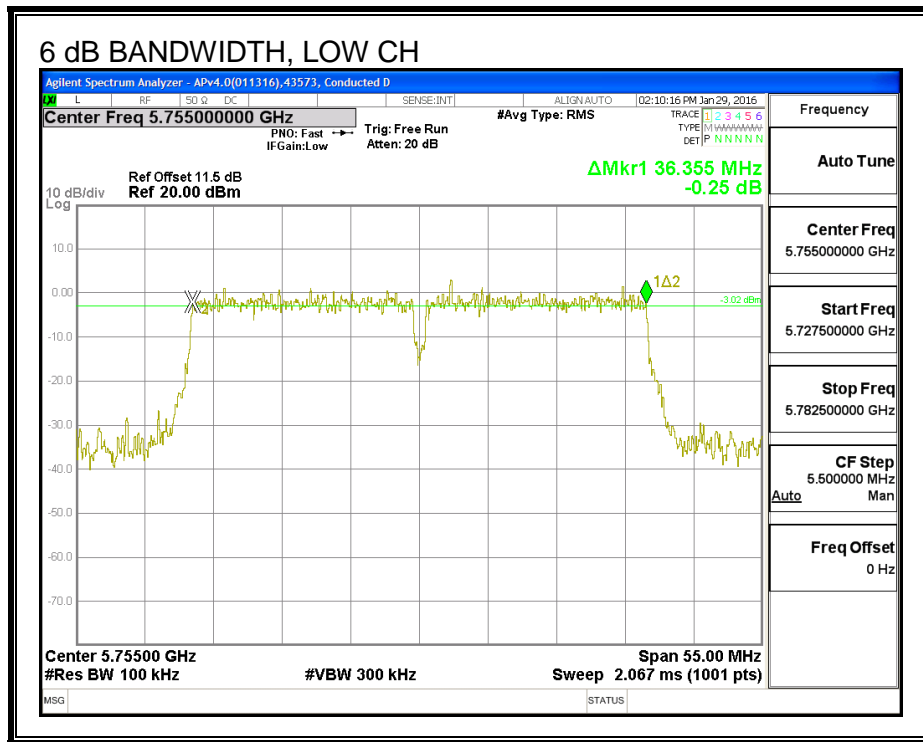
RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna B (MHz)	6 dB BW Antenna A (MHz)	Minimum Limit (MHz)
Low	5755	36.36	36.36	0.5
High	5795	36.36	36.36	0.5

6 dB BANDWIDTH, ANTENNA - B



6 dB BANDWIDTH, ANTENNA - A



8.122.2. 26 dB BANDWIDTH

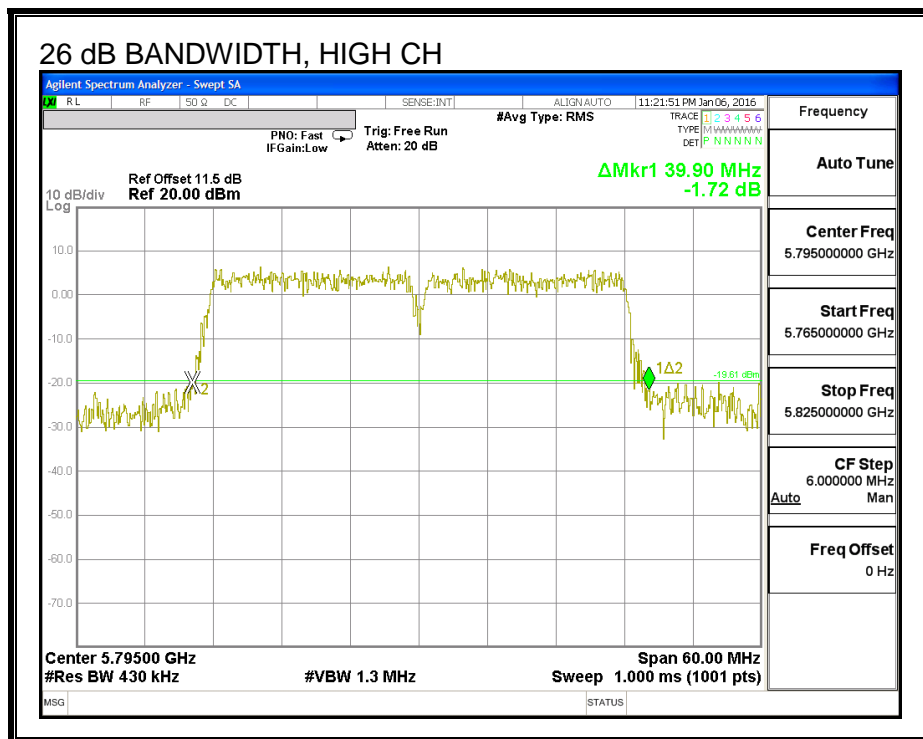
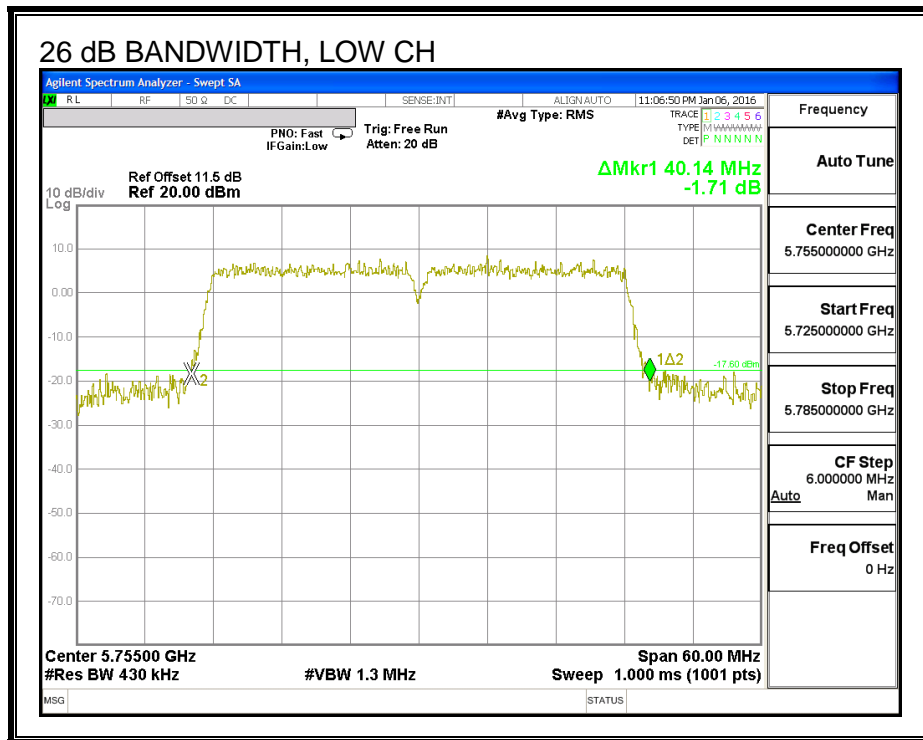
LIMITS

None, for reporting purposes only.

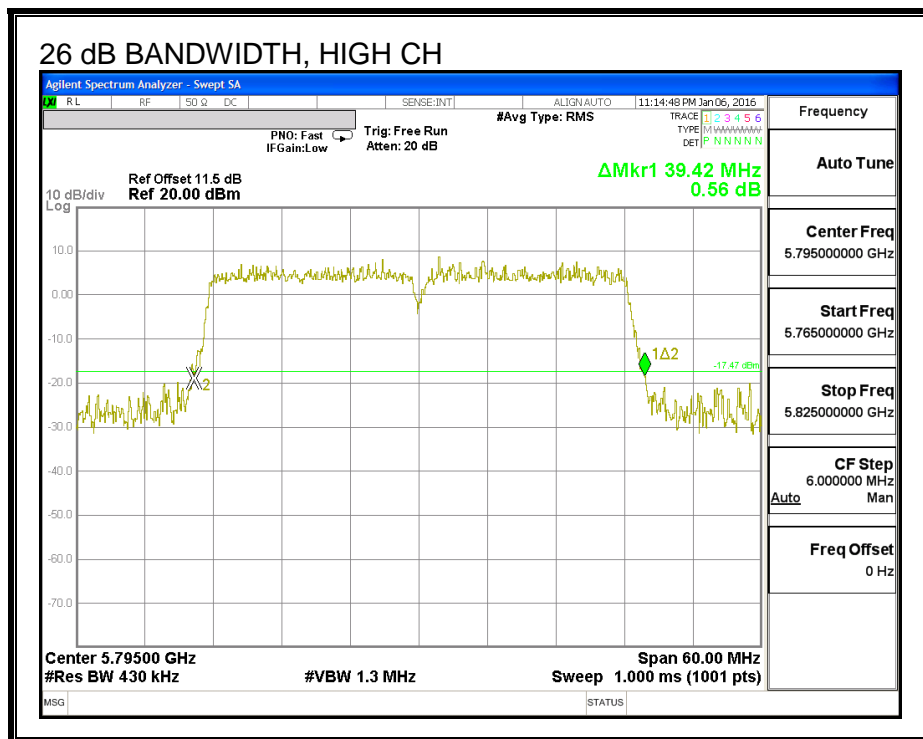
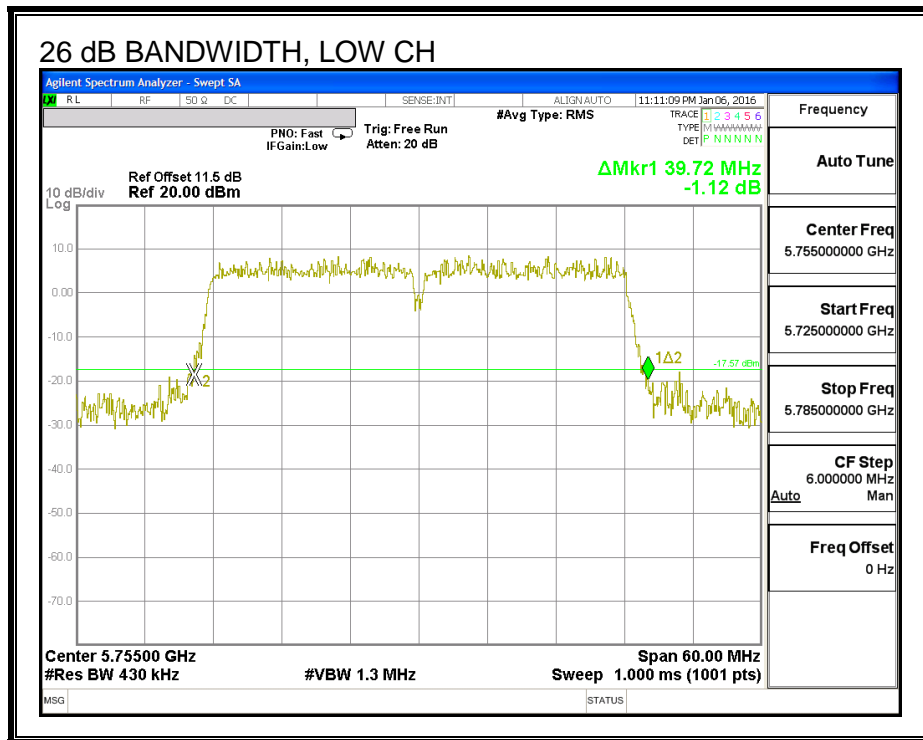
RESULTS

Channel	Frequency (MHz)	26 dB BW Antenna B (MHz)	26 dB BW Antenna A (MHz)
Low	5755	40.14	39.72
High	5795	39.90	39.42

26 dB BANDWIDTH, ANTENNA - B



26 dB BANDWIDTH, ANTENNA - A



8.122.3. 99% BANDWIDTH

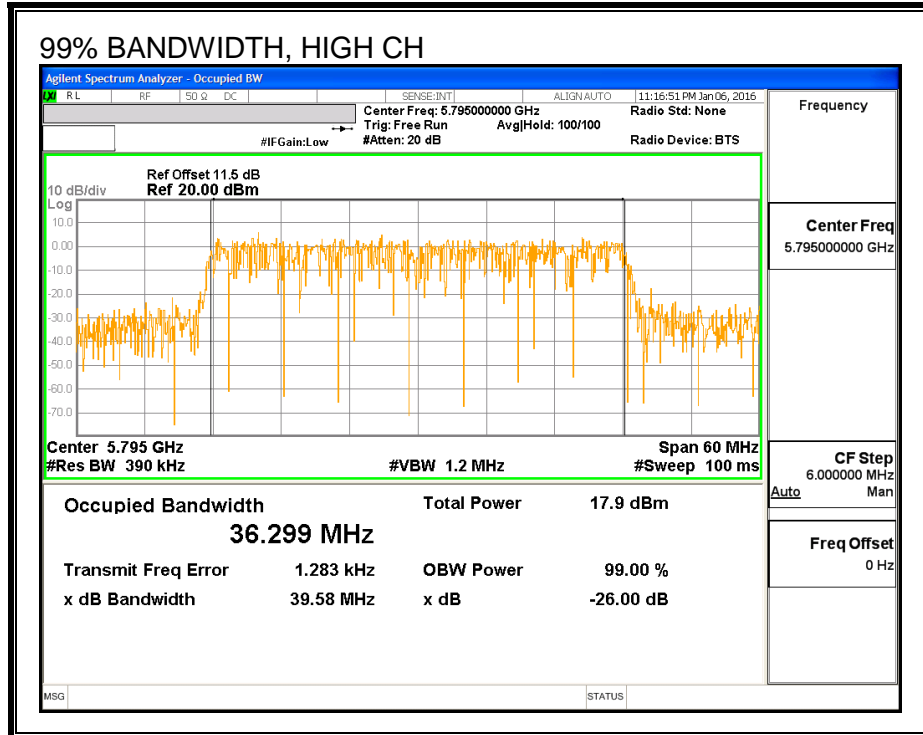
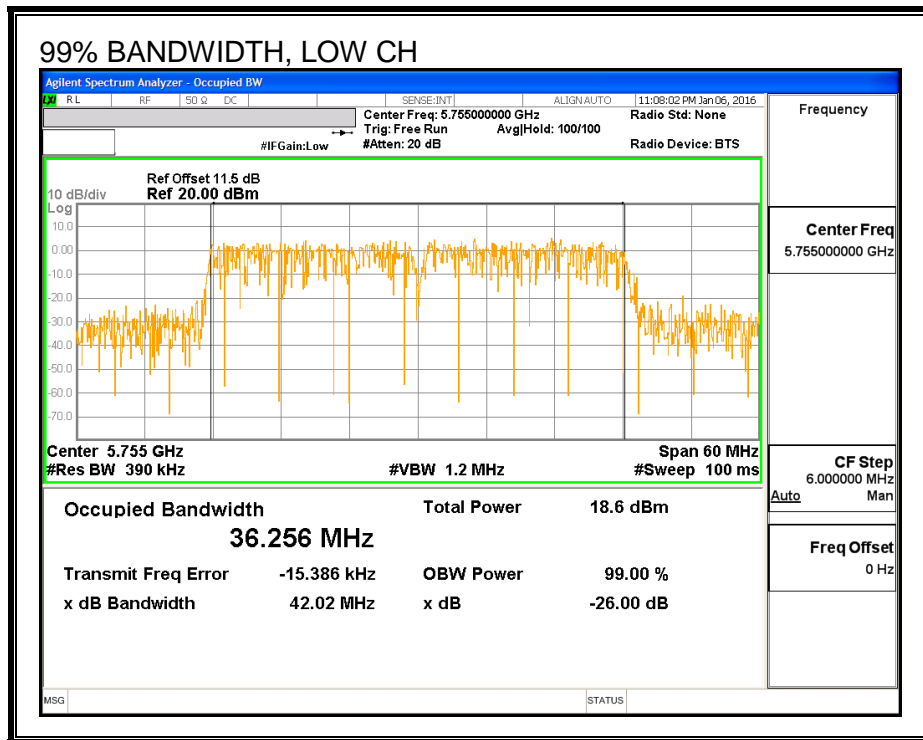
LIMITS

None; for reporting purposes only.

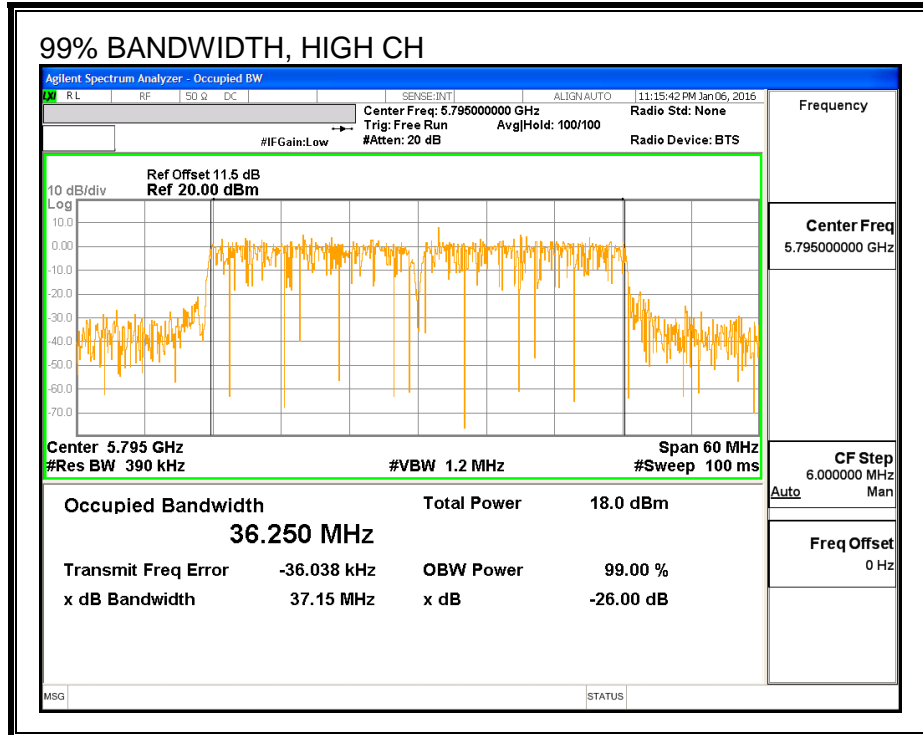
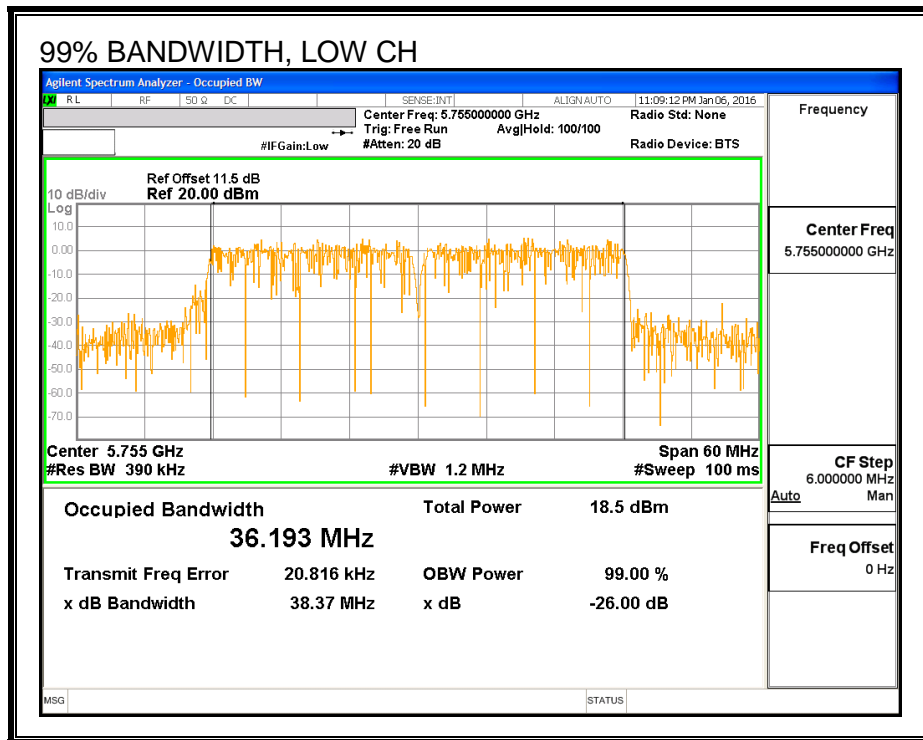
RESULTS

Channel	Frequency (MHz)	99% BW Antenna B (MHz)	99% BW Antenna A (MHz)
Low	5755	36.256	36.193
High	5795	36.299	36.250

99% BANDWIDTH, ANTENNA - B



99% BANDWIDTH, ANTENNA - A



8.122.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna B Power (dBm)	Antenna A Power (dBm)	Total Power (dBm)
Low	5755	12.45	12.39	15.43
High	5795	15.32	15.38	18.36

8.122.5. 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:

Antenna B	Antenna A	Uncorrelated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
2.42	4.16	3.38

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	3.38	30.00
High	5795	3.38	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	12.45	12.39	15.43	30.00	-14.57
High	5795	15.32	15.38	18.36	30.00	-11.64

8.122.6. 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:

Antenna B	Antenna A	Correlated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
2.42	4.16	6.34

RESULTS

Antenna Gain and Limit

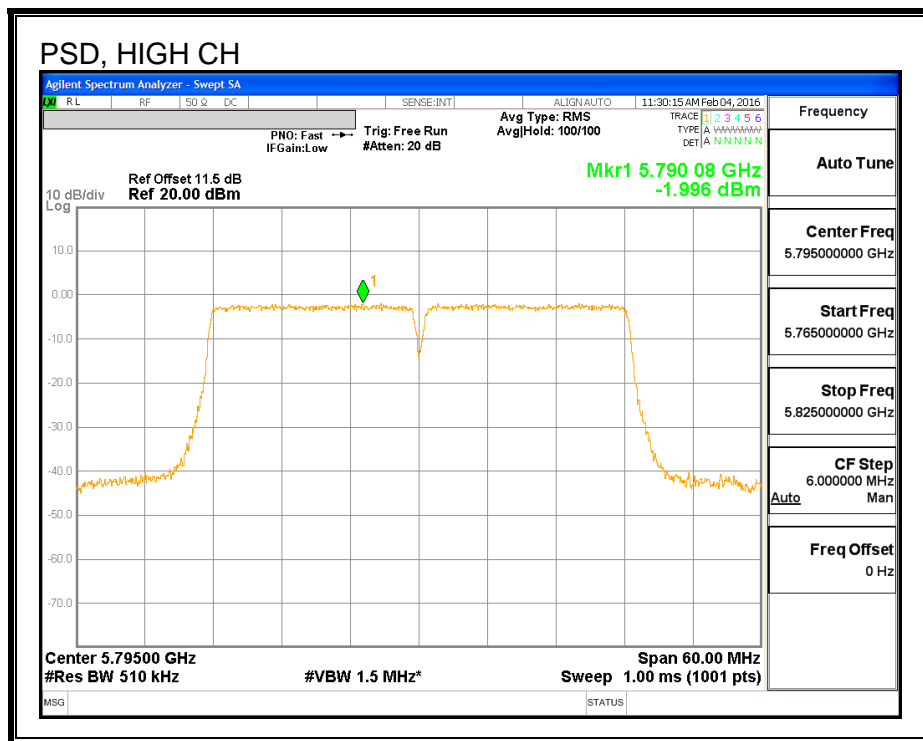
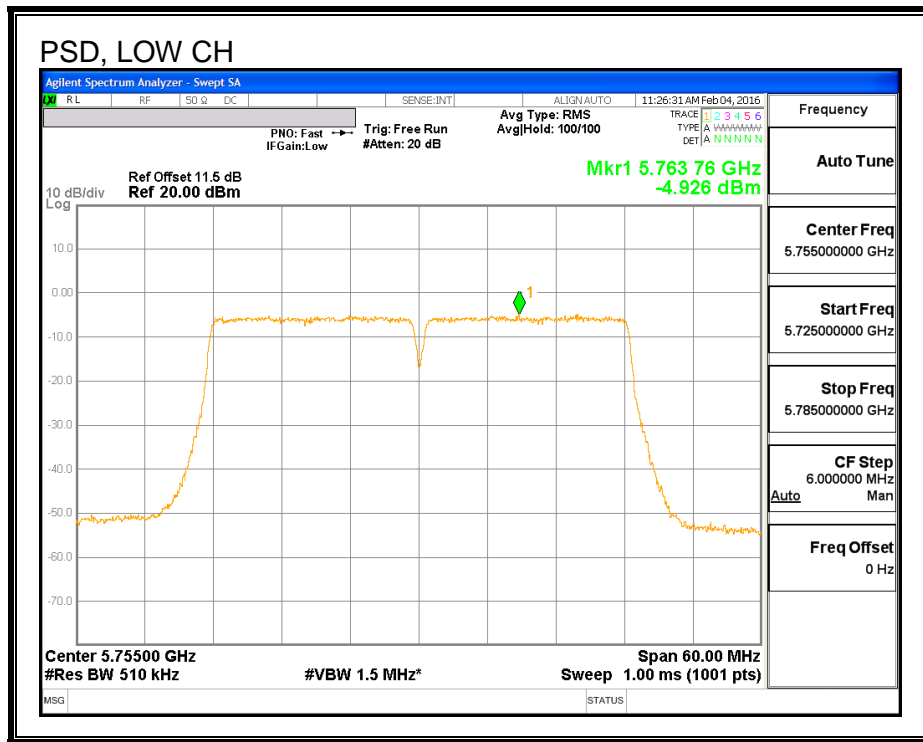
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	6.34	29.66
High	5795	6.34	29.66

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

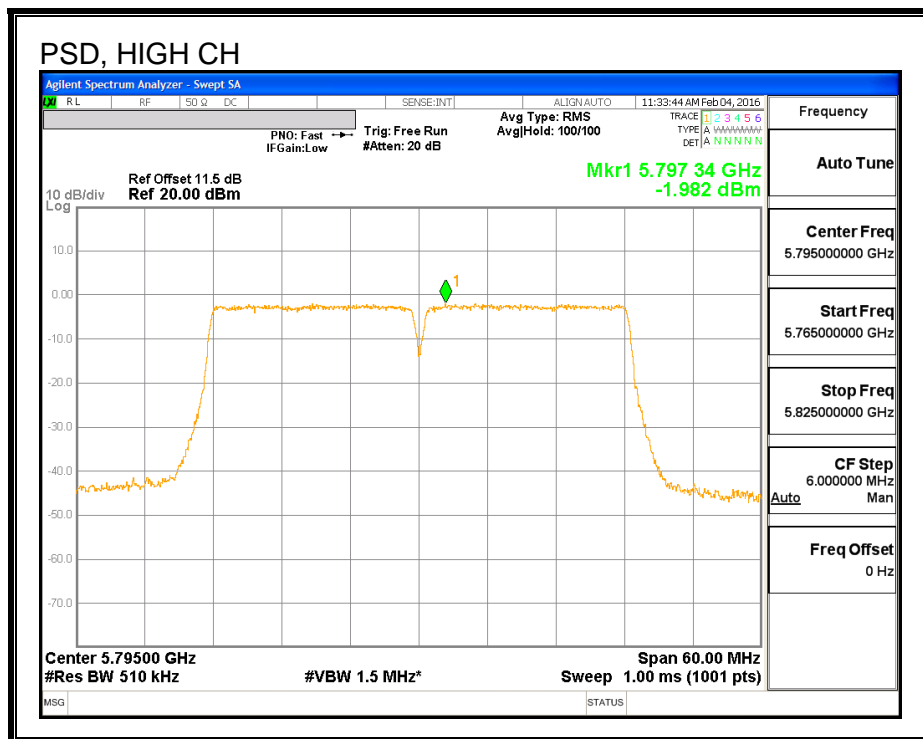
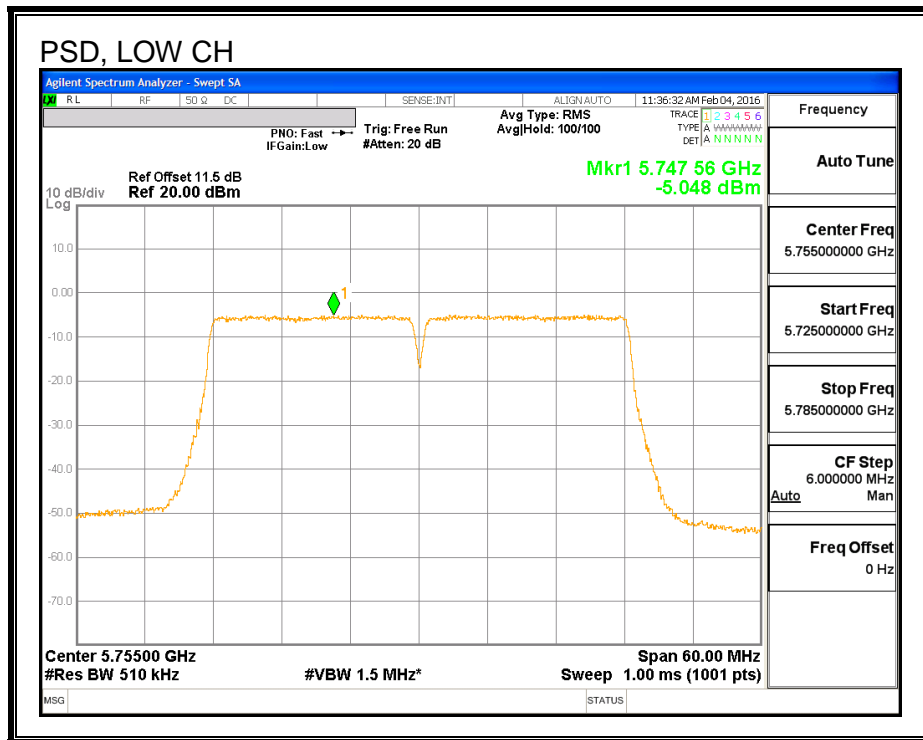
PSD Results

Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-4.93	-5.05	-1.98	29.66	-31.64
High	5795	-2.00	-1.98	1.02	29.66	-28.64

PSD, ANTENNA - B



PSD, ANTENNA - A



8.123. 802.11n HT40 ANTENNA A+C CDD MODE IN THE 5.8 GHz BAND

8.123.1.6 dB BANDWIDTH

LIMITS

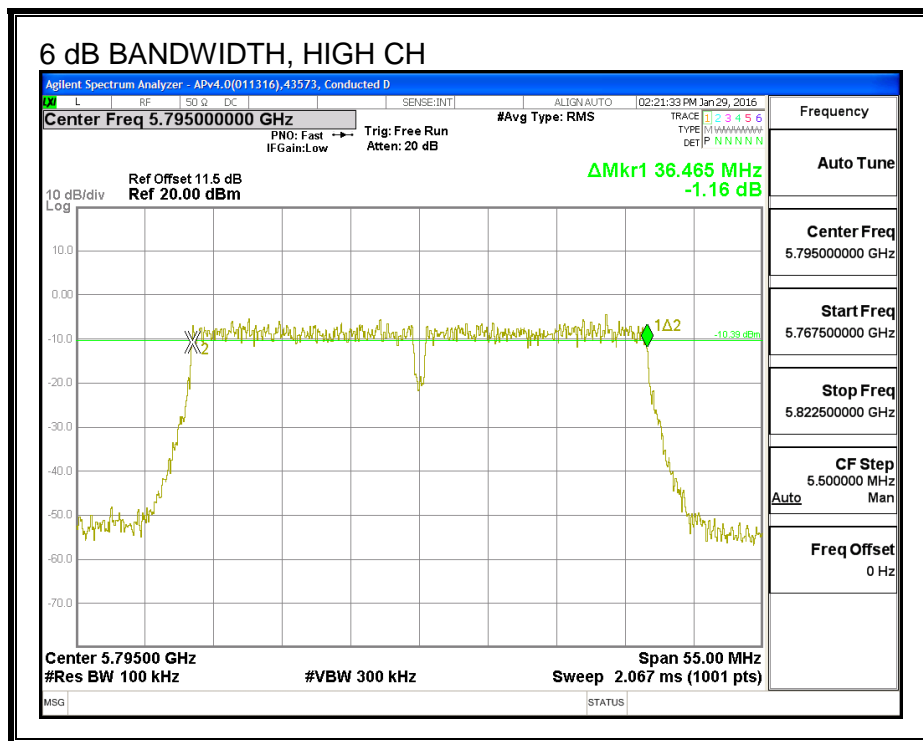
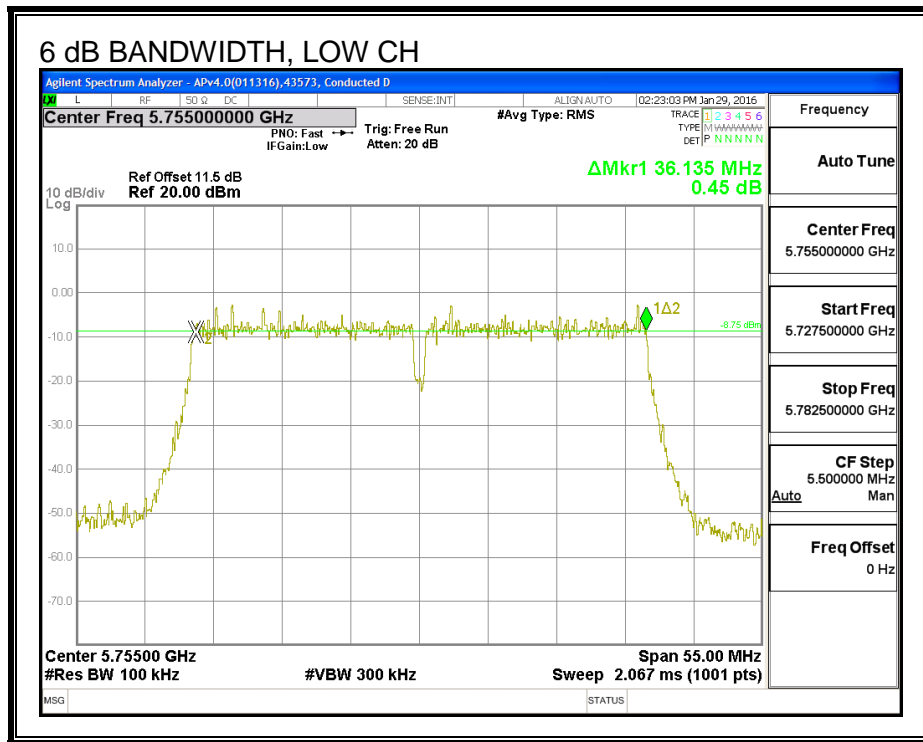
FCC §15.407 (e)

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

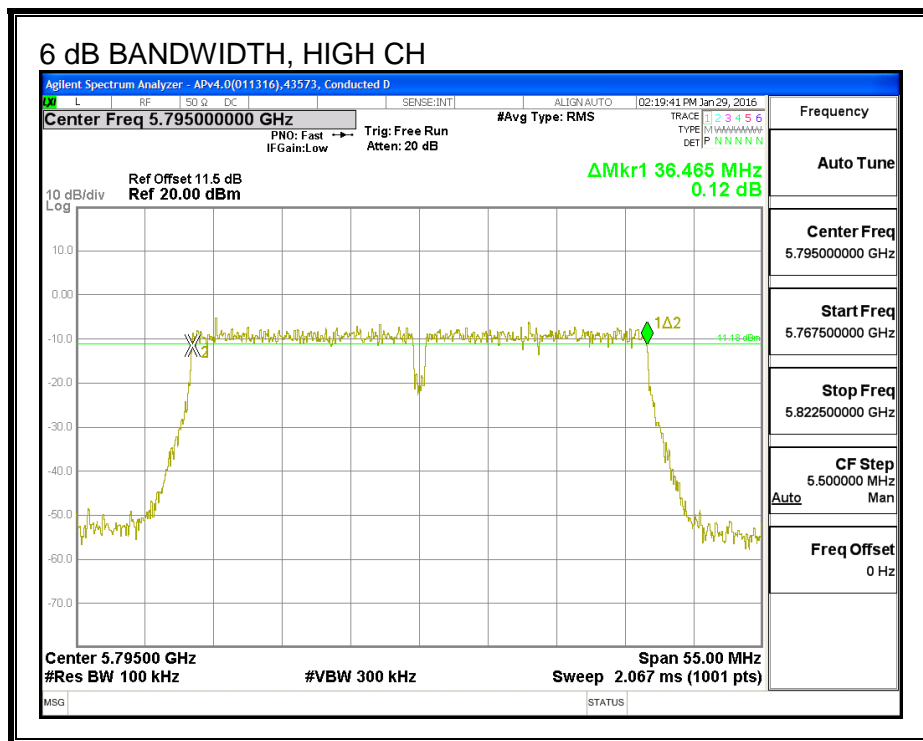
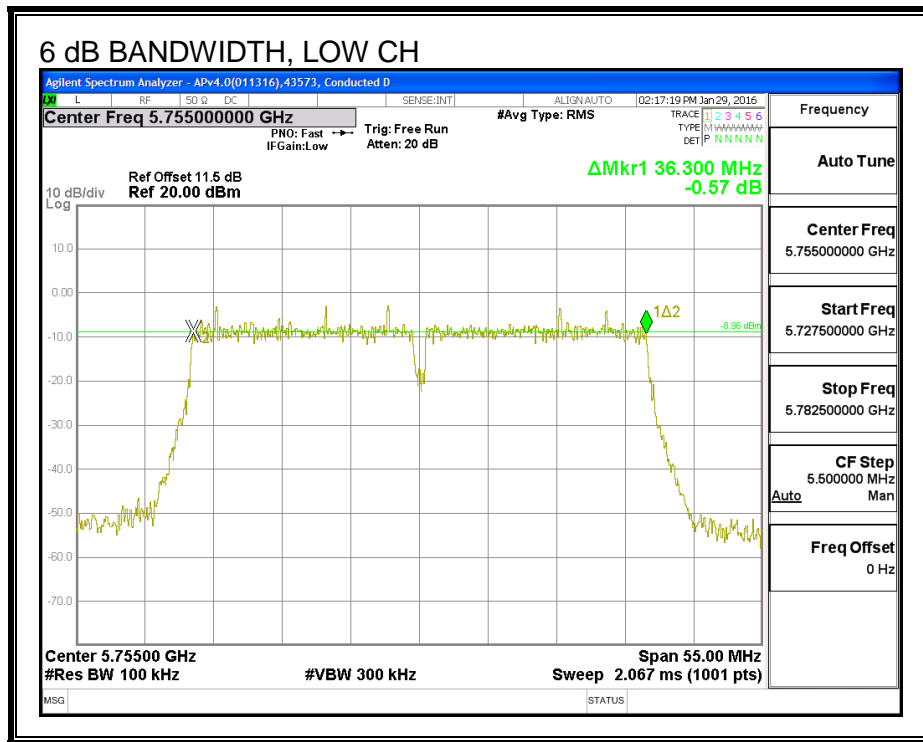
RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna A (MHz)	6 dB BW Antenna C (MHz)	Minimum Limit (MHz)
Low	5755	36.14	36.30	0.5
High	5795	36.47	36.47	0.5

6 dB BANDWIDTH, ANTENNA - A



6 dB BANDWIDTH, ANTENNA - C



8.123.2. 26 dB BANDWIDTH

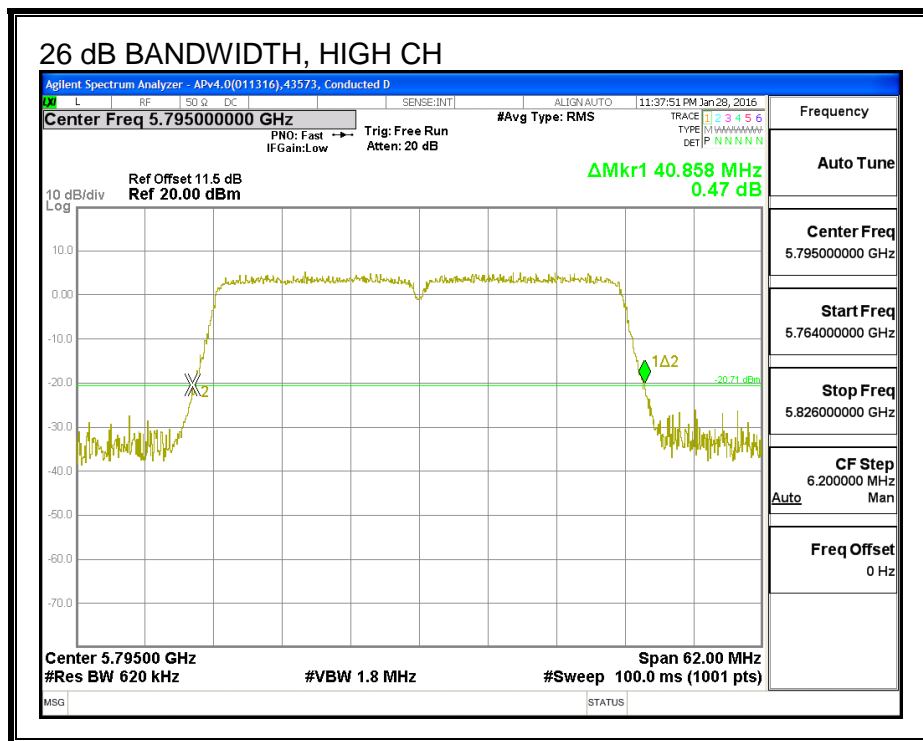
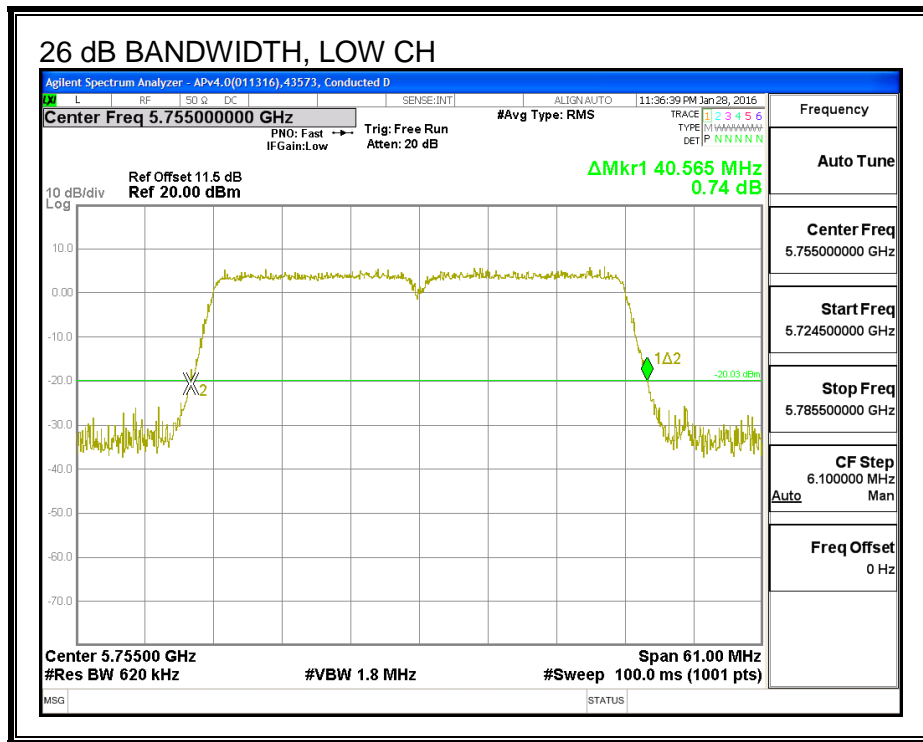
LIMITS

None, for reporting purposes only.

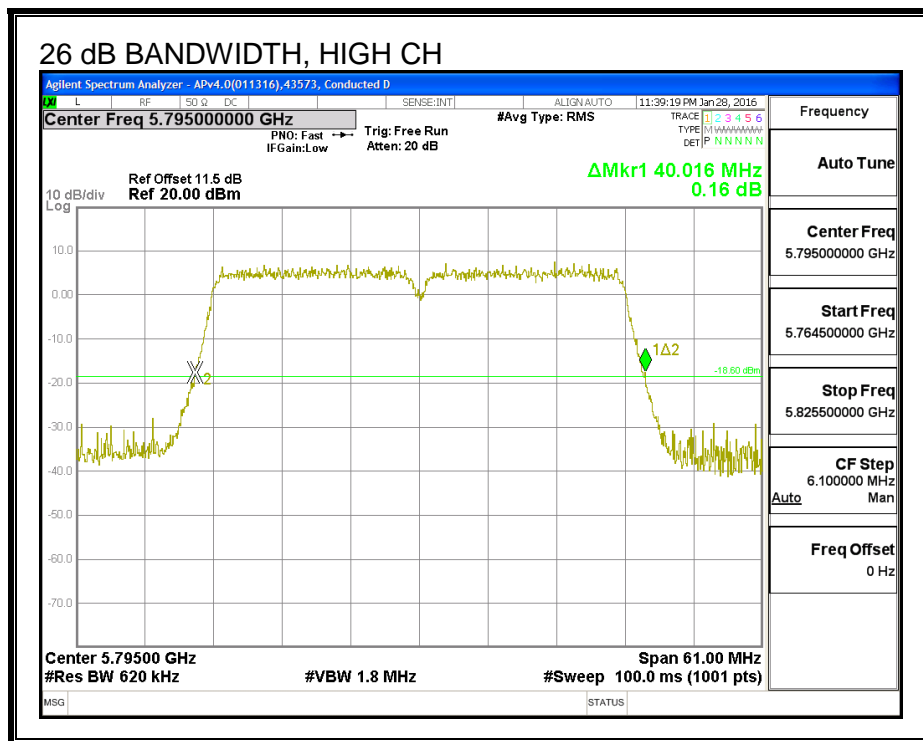
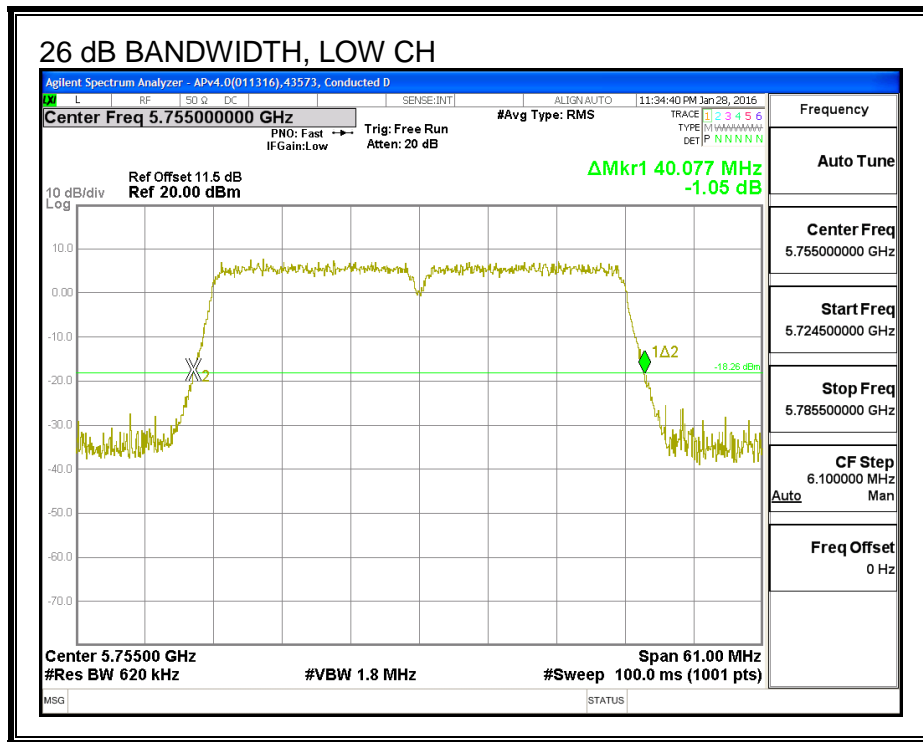
RESULTS

Channel	Frequency (MHz)	26 dB BW Antenna A (MHz)	26 dB BW Antenna C (MHz)
Low	5755	40.57	40.08
High	5795	40.86	40.02

26 dB BANDWIDTH, ANTENNA - A



26 dB BANDWIDTH, ANTENNA - C



8.123.3. 99% BANDWIDTH

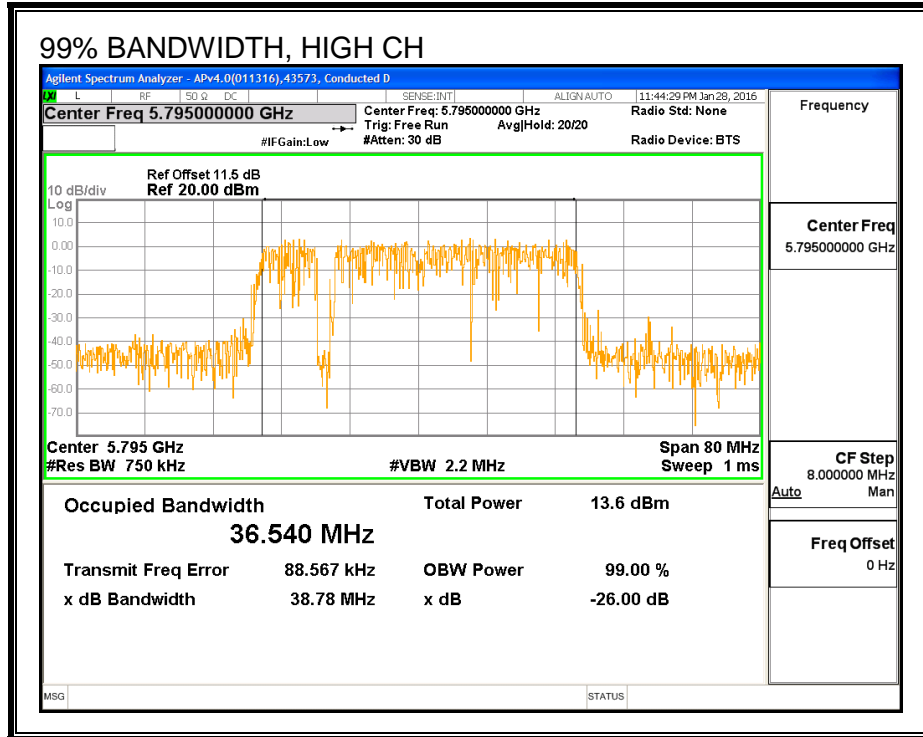
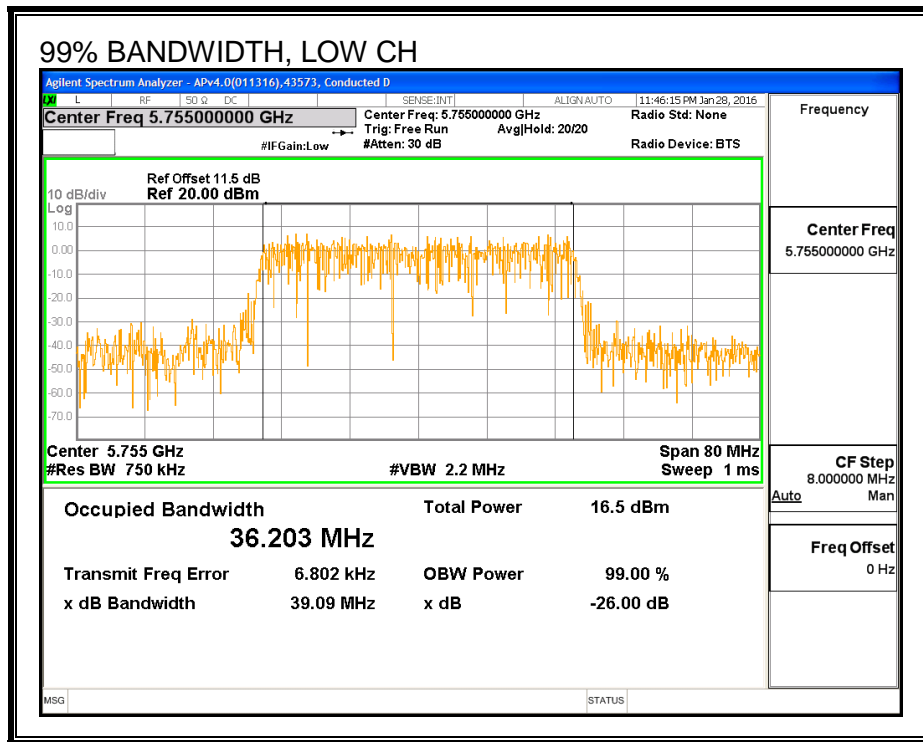
LIMITS

None; for reporting purposes only.

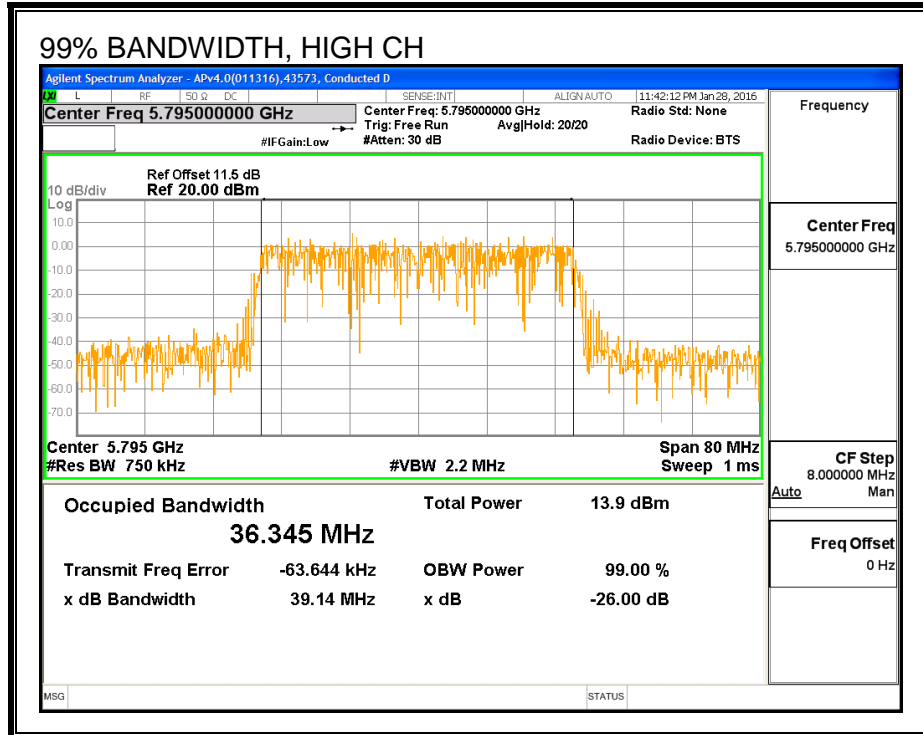
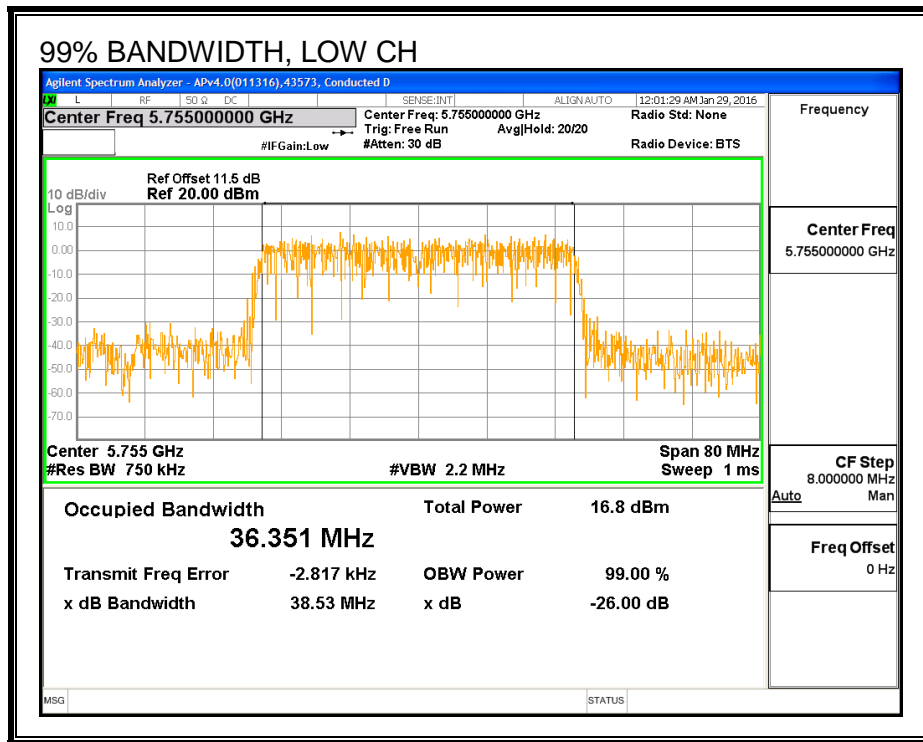
RESULTS

Channel	Frequency (MHz)	99% BW Antenna A (MHz)	99% BW Antenna C (MHz)
Low	5755	36.203	36.351
High	5795	36.540	36.345

99% BANDWIDTH, ANTENNA - A



99% BANDWIDTH, ANTENNA - C



8.123.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna A Power (dBm)	Antenna C Power (dBm)	Total Power (dBm)
Low	5755	12.32	12.33	15.34
High	5795	15.36	15.46	18.42

8.123.5. 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:

Antenna A	Antenna C	Uncorrelated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
4.16	3.92	4.04

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Low	5755	4.04	30.00
High	5795	4.04	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	12.32	12.33	15.34	30.00	-14.66
High	5795	15.36	15.46	18.42	30.00	-11.58

8.123.6. 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:

Antenna A	Antenna C	Correlated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
4.16	3.92	7.05

RESULTS

Antenna Gain and Limit

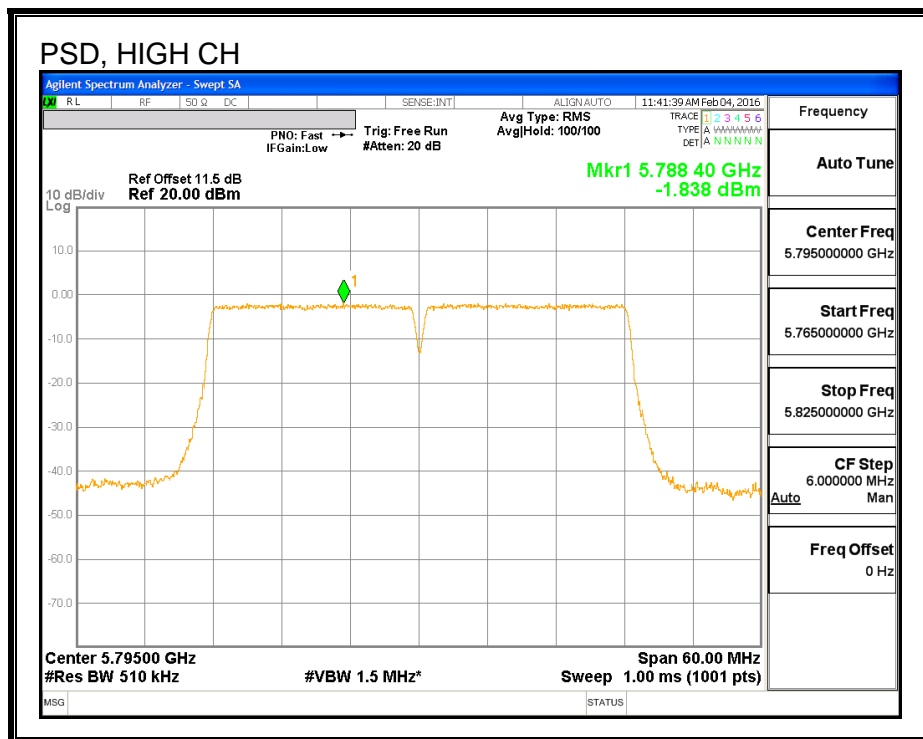
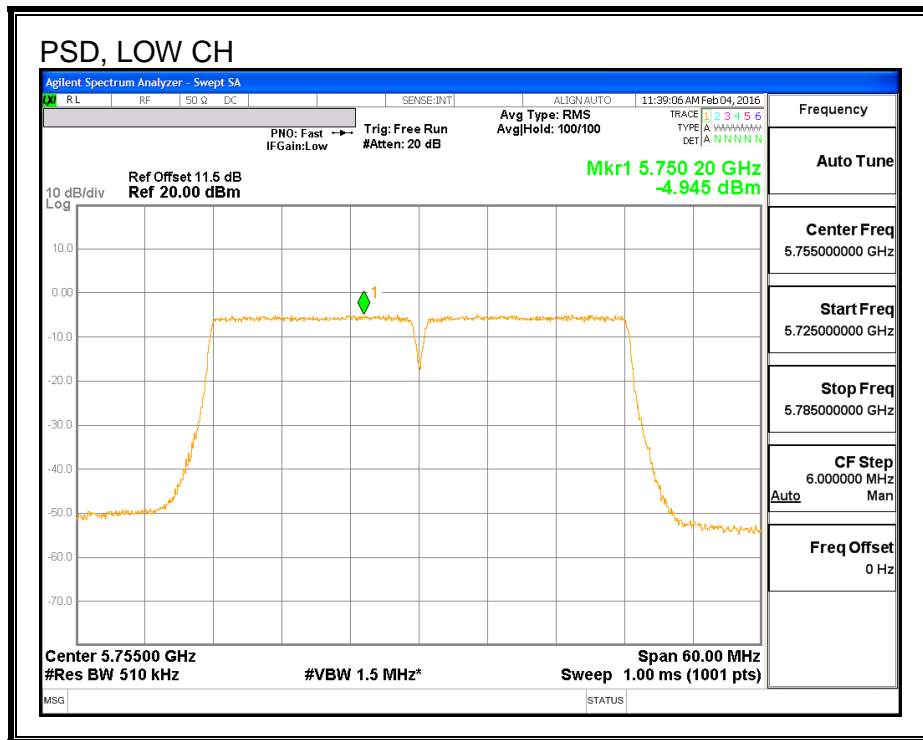
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	7.05	28.95
High	5795	7.05	28.95

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

Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	-4.95	-4.93	-1.93	28.95	-30.88
High	5795	-1.84	-1.77	1.20	28.95	-27.75

PSD, ANTENNA - A



8.124. 802.11n HT40 ANTENNA B+A STBC MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT40 ANTENNA B+A CDD MODE IN THE 5.8 GHz BAND

8.125. 802.11n HT40 ANTENNA A+C STBC MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT40 ANTENNA A+C CDD MODE IN THE 5.8 GHz BAND

8.126. 802.11n HT40 ANTENNA B+A SDM MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT40 ANTENNA B+A CDD MODE IN THE 5.8 GHz BAND

8.127. 802.11n HT40 ANTENNA A+C SDM MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT40 ANTENNA A+C CDD MODE IN THE 5.8 GHz BAND

8.128. 802.11ac VHT80 ANTENNA - B MODE IN THE 5.8 GHz BAND

8.128.1.6 dB BANDWIDTH

LIMITS

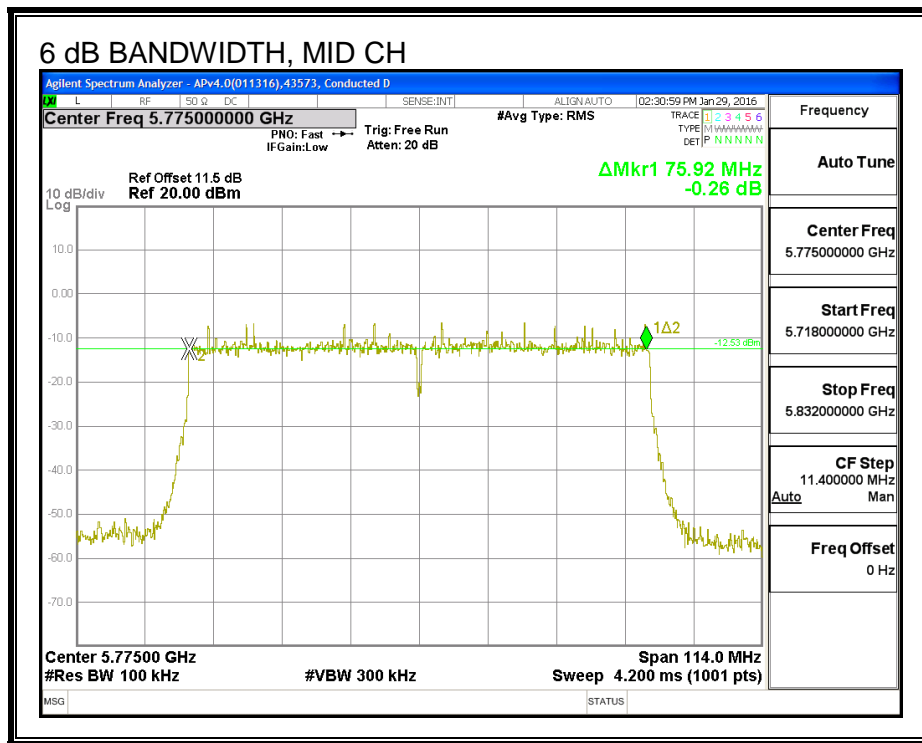
FCC §15.407 (e)

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	75.92	0.5

6 dB BANDWIDTH



8.128.3.99% BANDWIDTH

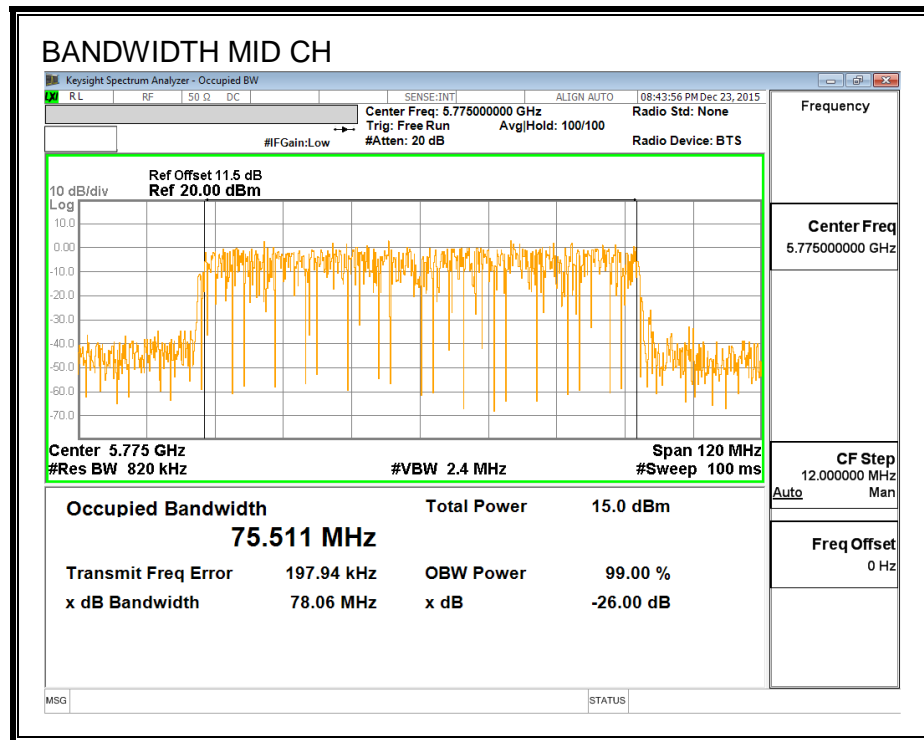
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5775	75.511

99% BANDWIDTH



8.128.4. 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	13.45

8.128.5. 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.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	2.42	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	13.45	13.45	30.00	-16.55

8.128.6. 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

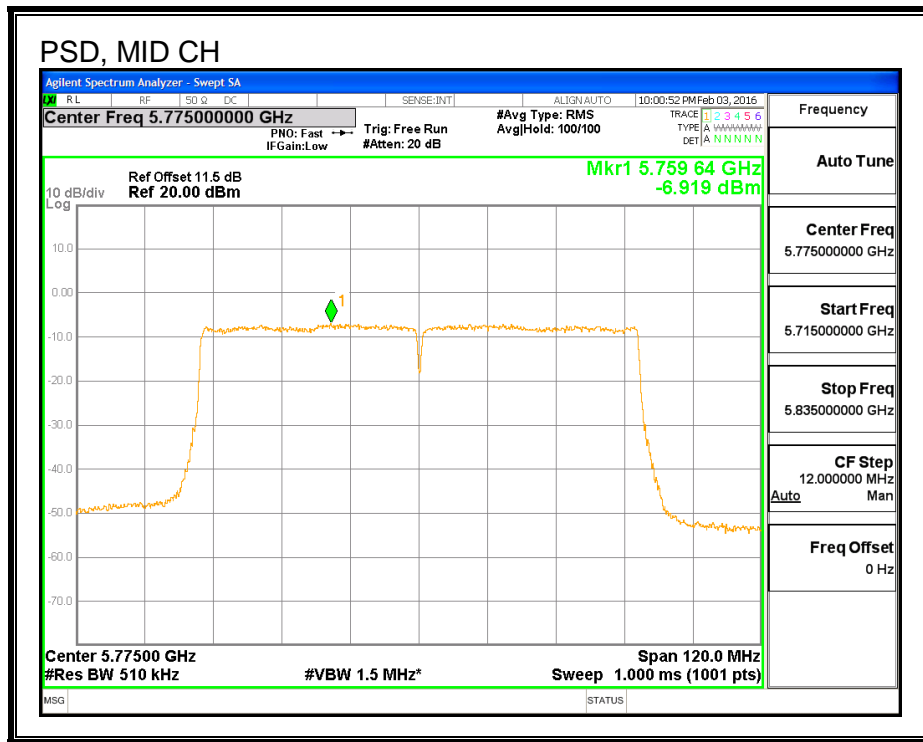
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	2.42	30.00

Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-6.92	-6.76	30.00	-36.76

PSD



8.129. 802.11ac VHT80 ANTENNA - A MODE IN THE 5.8 GHz BAND

8.129.1.6 dB BANDWIDTH

LIMITS

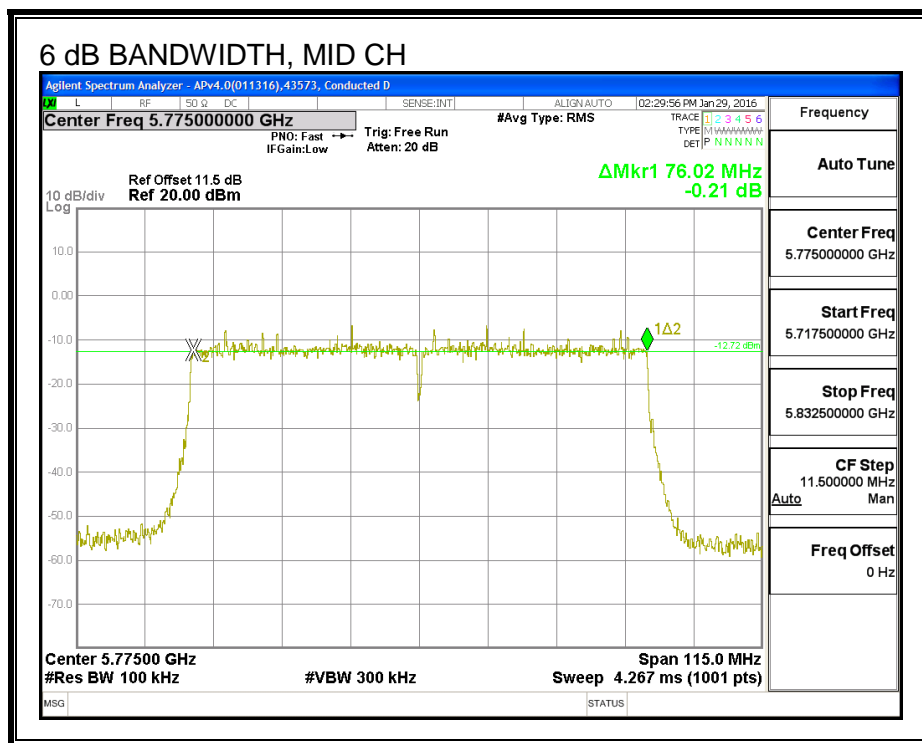
FCC §15.407 (e)

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Mid	5775	76.02	0.5

6 dB BANDWIDTH



8.129.2. 26 dB BANDWIDTH

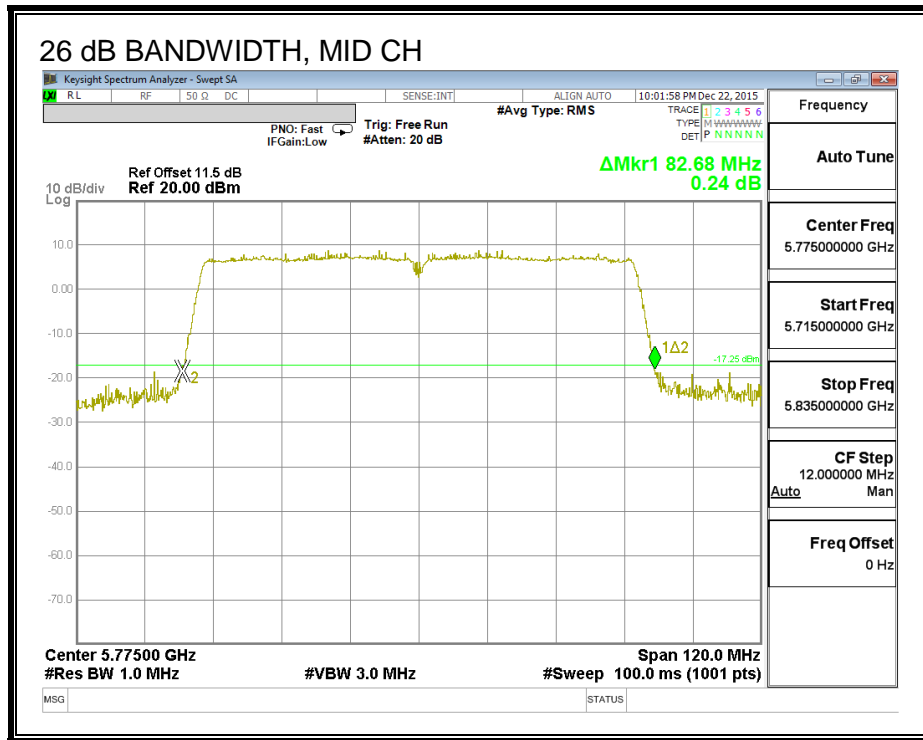
LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5775	82.68

26 dB BANDWIDTH



8.129.3. 99% BANDWIDTH

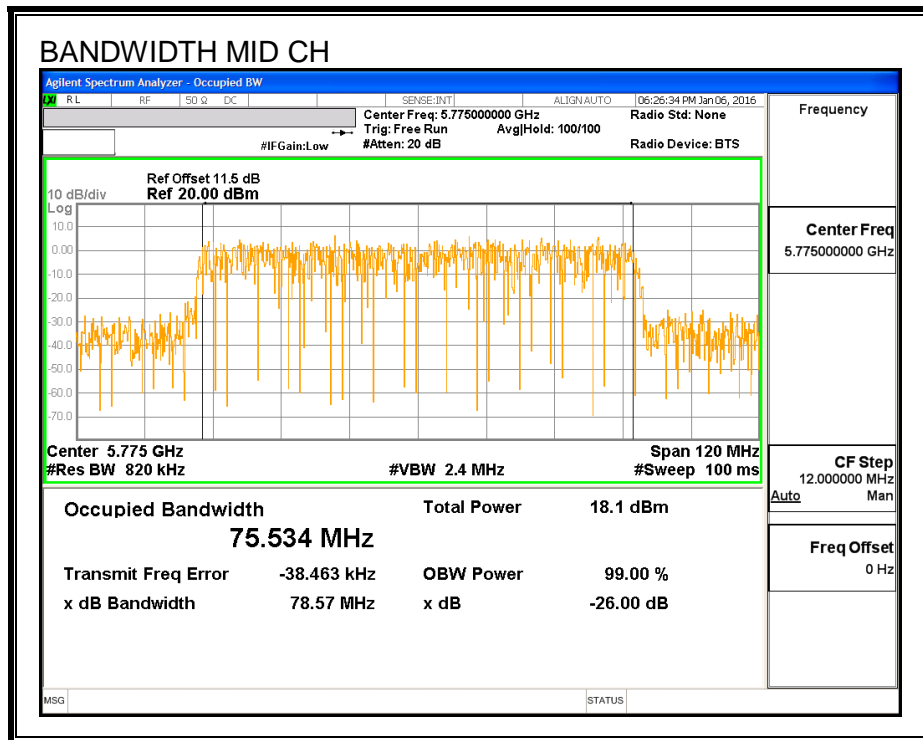
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5775	75.534

99% BANDWIDTH



8.129.4. 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	13.49

8.129.5. 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.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	4.16	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	13.49	13.49	30.00	-16.51

8.129.6. 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

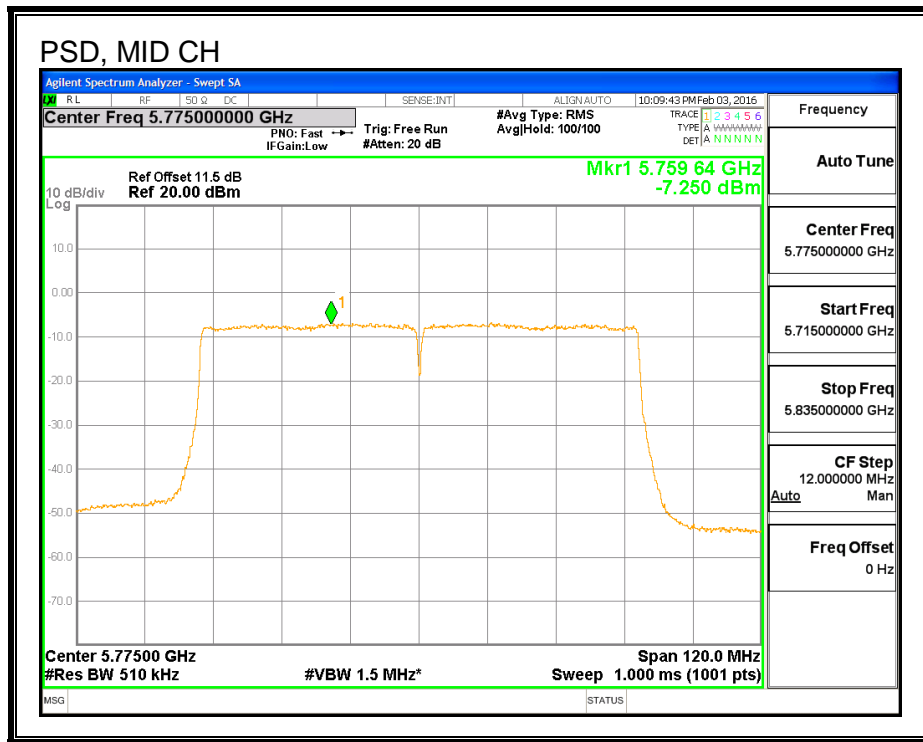
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	4.16	30.00

Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd PSD
--------------------	------	----------------------------------------

PSD Results

Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-7.25	-7.09	30.00	-37.09

PSD



8.130. 802.11ac VHT80 ANTENNA - C MODE IN THE 5.8 GHz BAND

8.130.1.6 dB BANDWIDTH

LIMITS

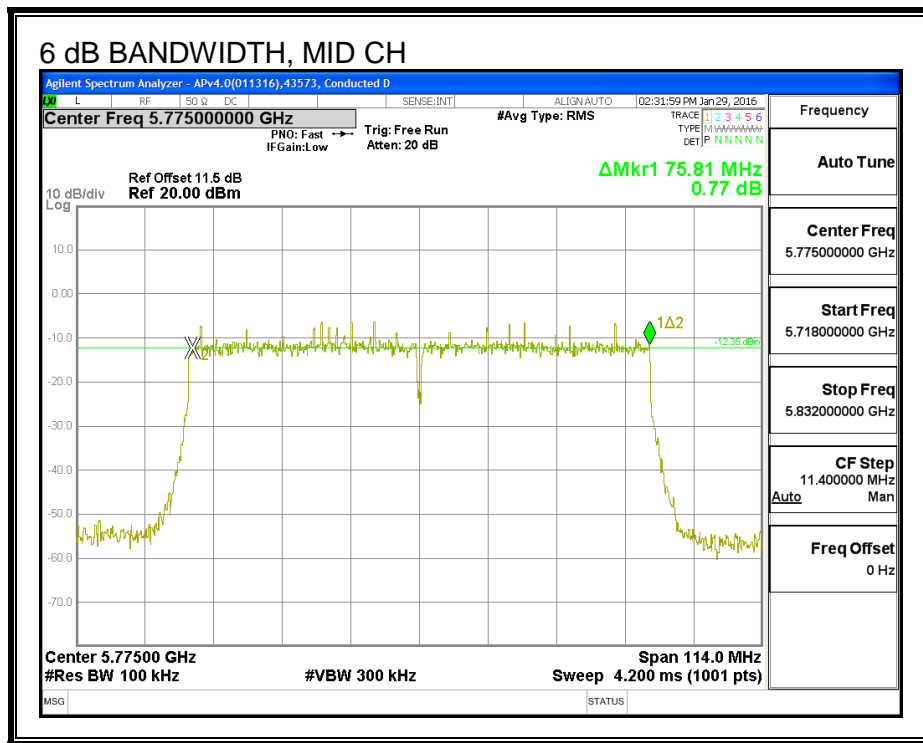
FCC §15.407 (e)

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



8.130.2. 26 dB BANDWIDTH

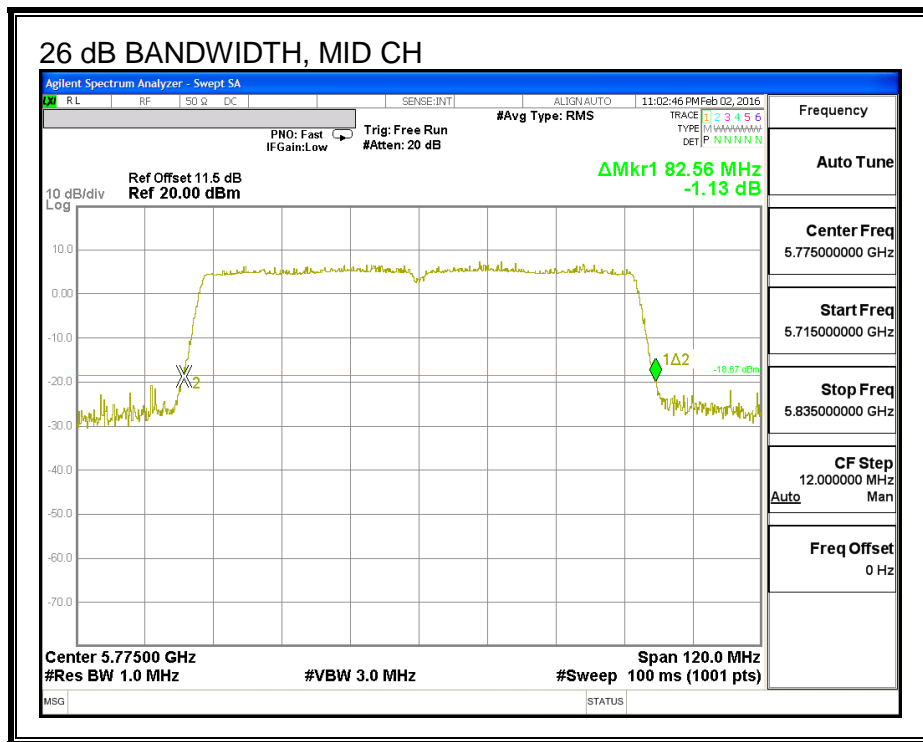
LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Mid	5775	82.56

26 dB BANDWIDTH



8.130.3. 99% BANDWIDTH

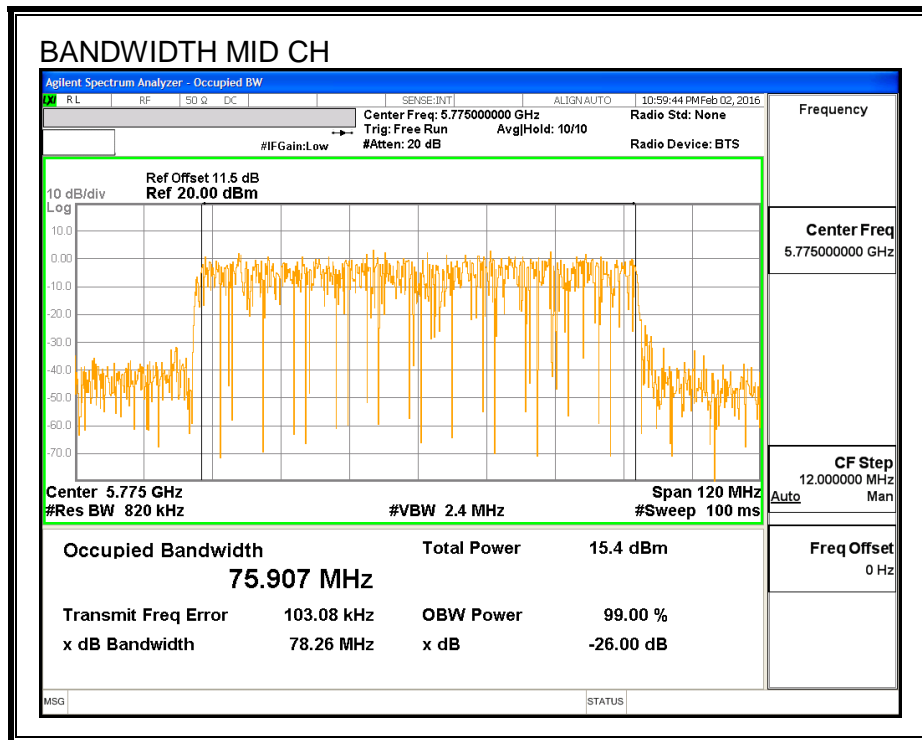
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Mid	5775	75.907

99% BANDWIDTH



8.130.4. 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	13.30

8.130.5. 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.

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	3.92	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	13.30	13.30	30.00	-16.70

8.130.6. 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	3.92	30.00

Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd PSD
---------------------------	------	-----------------------------------------------

PSD Results

Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-6.94	-6.78	30.00	-36.78

8.131. 802.11ac VHT80 ANTENNA B + A CDD MODE IN THE 5.8 GHz BAND

8.131.1.6 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 Antenna B (MHz)	6 dB BW Antenna A (MHz)	Minimum Limit (MHz)
Mid	5775	76.36	76.36	0.5

8.131.2. 26 dB BANDWIDTH

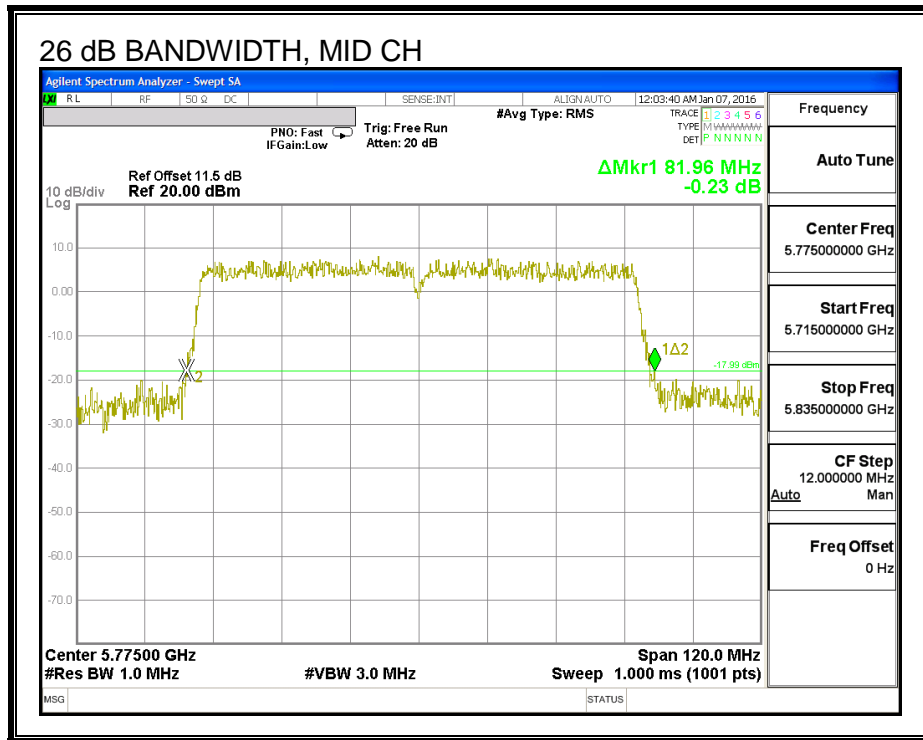
LIMITS

None, for reporting purposes only.

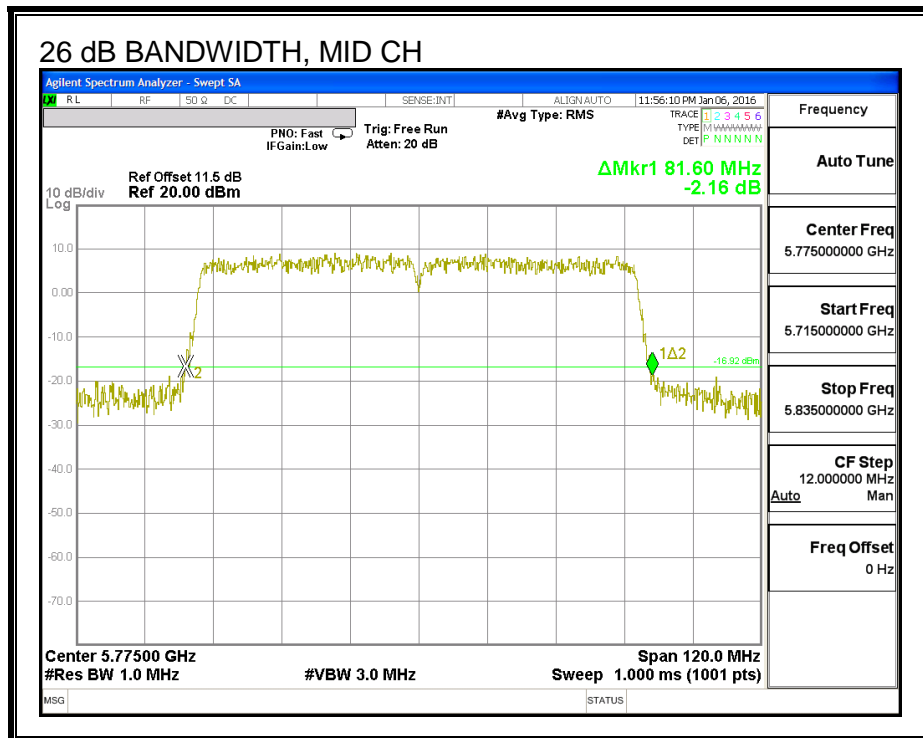
RESULTS

Channel	Frequency (MHz)	26 dB BW Antenna B (MHz)	26 dB BW Antenna A (MHz)
Mid	5775	81.96	81.60

26 dB BANDWIDTH, ANTENNA - B



26 dB BANDWIDTH, ANTENNA - A



8.131.3.99% BANDWIDTH

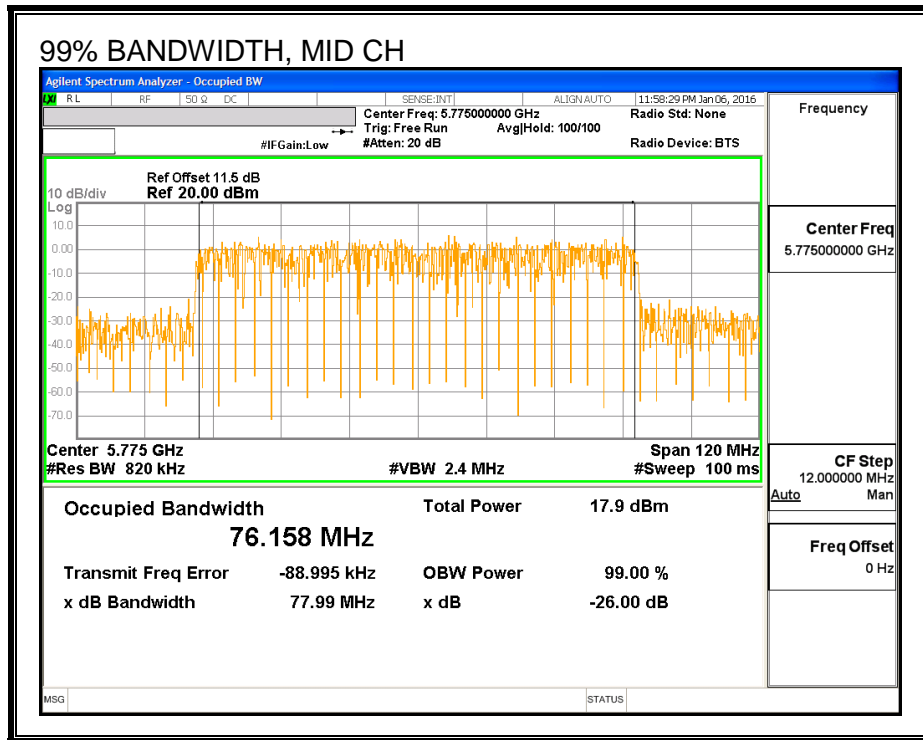
LIMITS

None; for reporting purposes only.

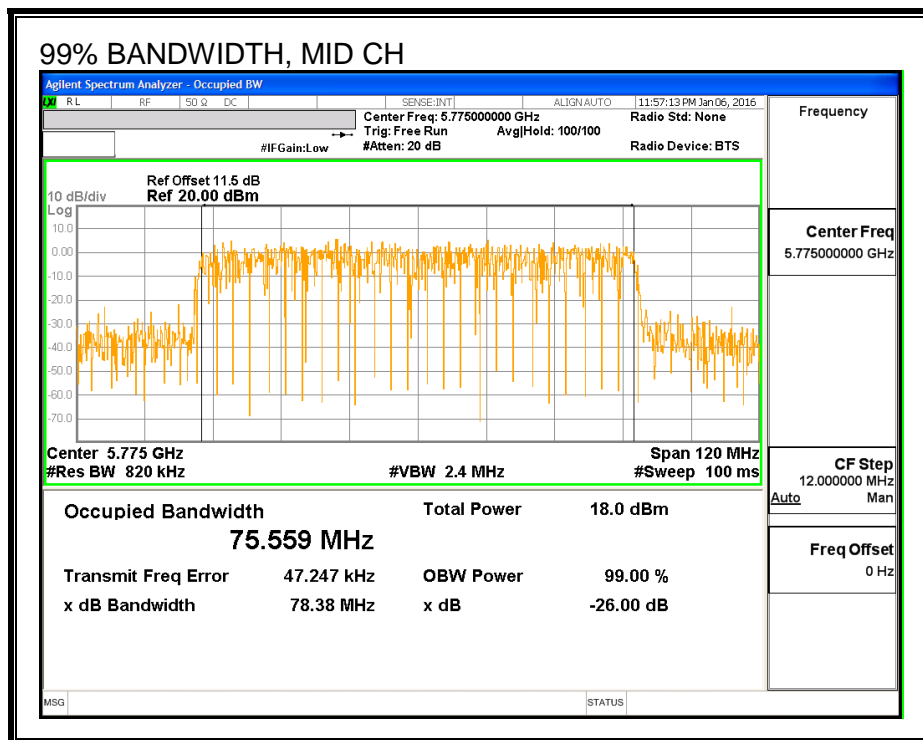
RESULTS

Channel	Frequency (MHz)	99% BW Antenna B (MHz)	99% BW Antenna A (MHz)
Mid	5775	76.158	75.559

99% BANDWIDTH, ANTENNA - B



99% BANDWIDTH, ANTENNA - A



8.131.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna B Power (dBm)	Antenna A Power (dBm)	Total Power (dBm)
Mid	5775	12.85	12.90	15.89

8.131.5. 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:

Antenna B	Antenna A	Uncorrelated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
2.42	4.16	3.38

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	3.38	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna B Meas Power (dBm)	Antenna A Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	12.85	12.90	15.89	30.00	-14.11

8.131.6. 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:

Anetnna B	Antenna A	Correlated Chains
Gain	Gain	Directional
(dBi)	(dBi)	Gain
		(dBi)
2.42	4.16	6.34

RESULTS

Antenna Gain and Limit

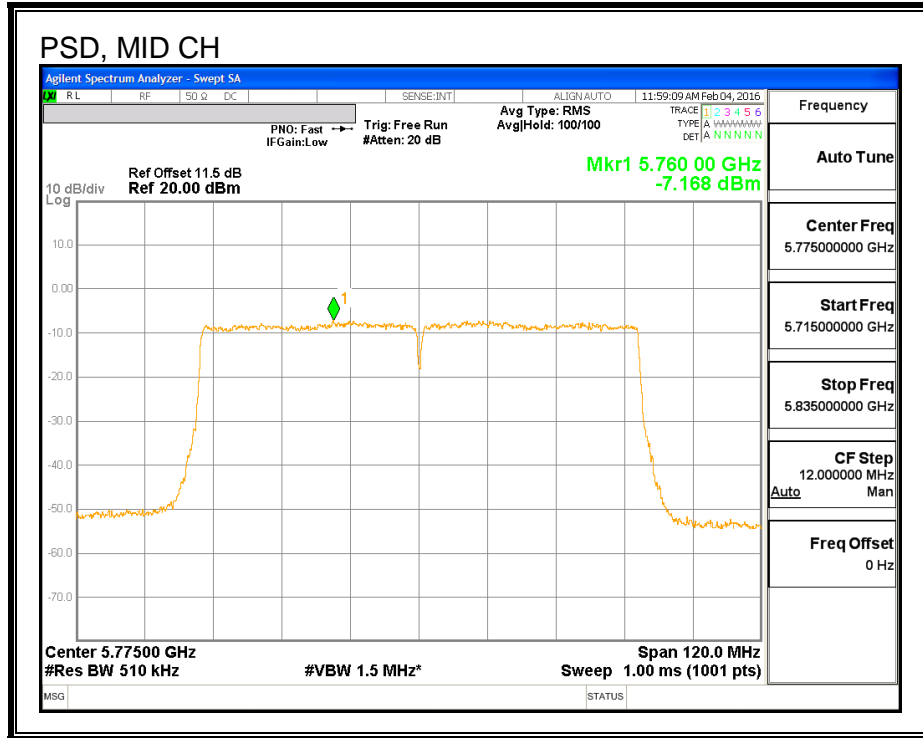
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	6.34	29.66

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd PSD
---------------------------	------	-----------------------------------------------

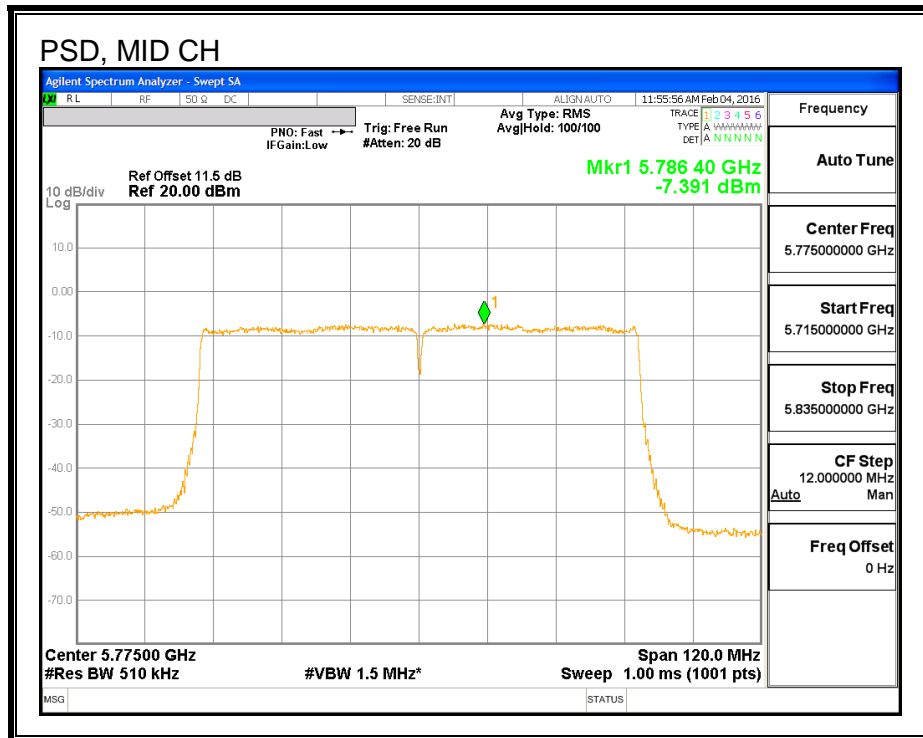
PSD Results

Channel	Frequency (MHz)	Antenna B Meas PSD (dBm)	Antenna A Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-7.17	-7.39	-4.07	29.66	-33.73

PSD, ANTENNA - B



PSD, ANTENNA - A



8.132. 802.11ac VHT80 ANTENNA A + C CDD MODE IN THE 5.8 GHz BAND

8.132.1.6 dB BANDWIDTH

LIMITS

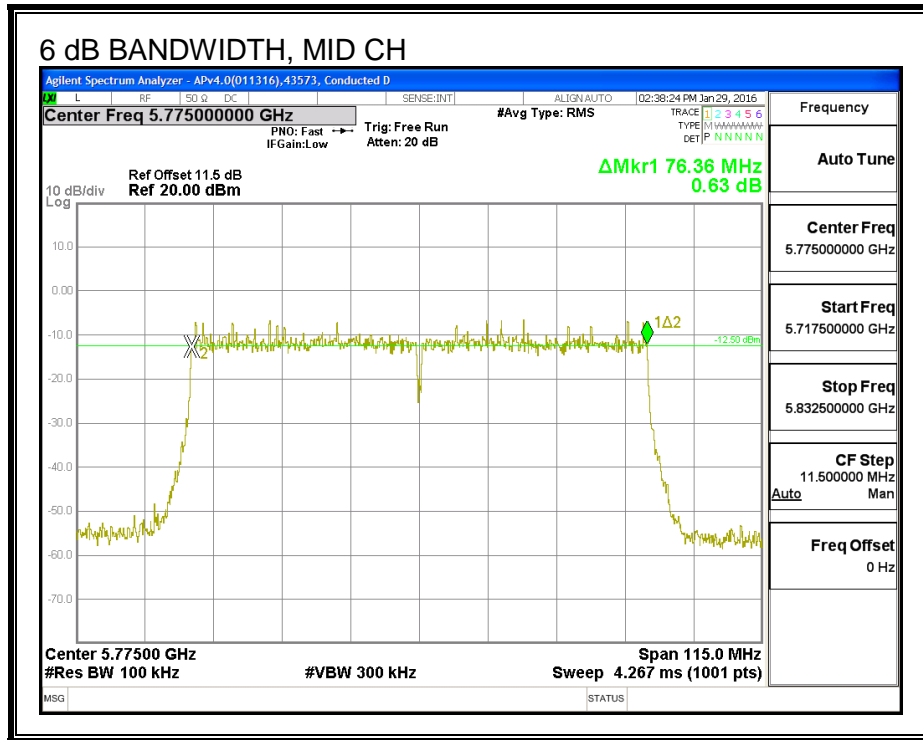
FCC §15.407 (e)

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

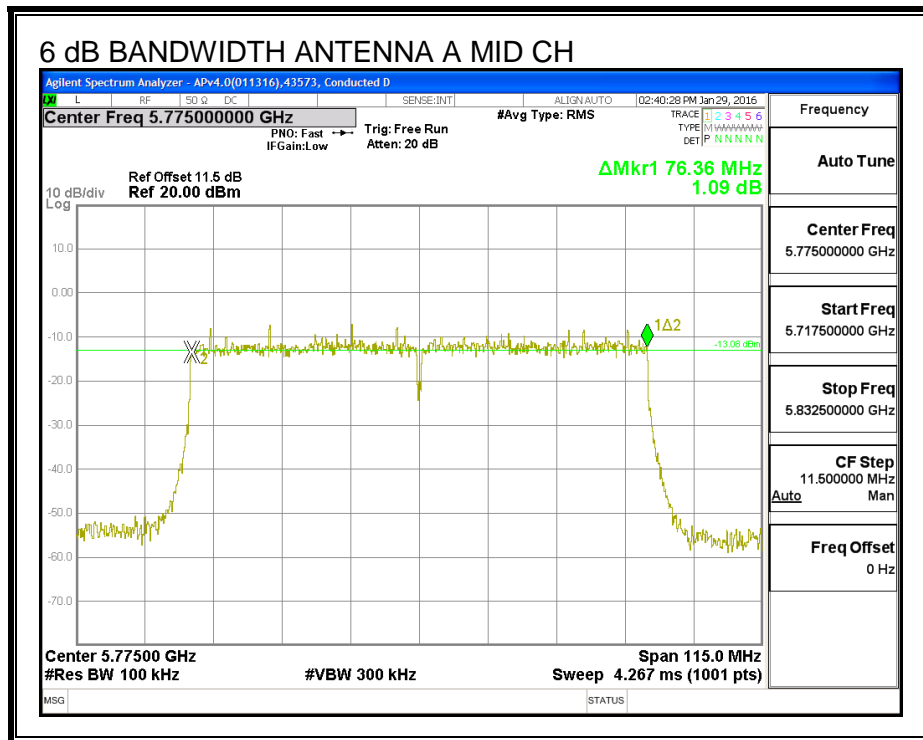
RESULTS

Channel	Frequency (MHz)	6 dB BW Antenna A (MHz)	6 dB BW Antenna C (MHz)	Minimum Limit (MHz)
Mid	5775	76.36	76.36	0.5

6 dB BANDWIDTH, ANTENNA - A



6 DB BANDWIDTH, ANTENNA - C



8.132.2. 26 dB BANDWIDTH

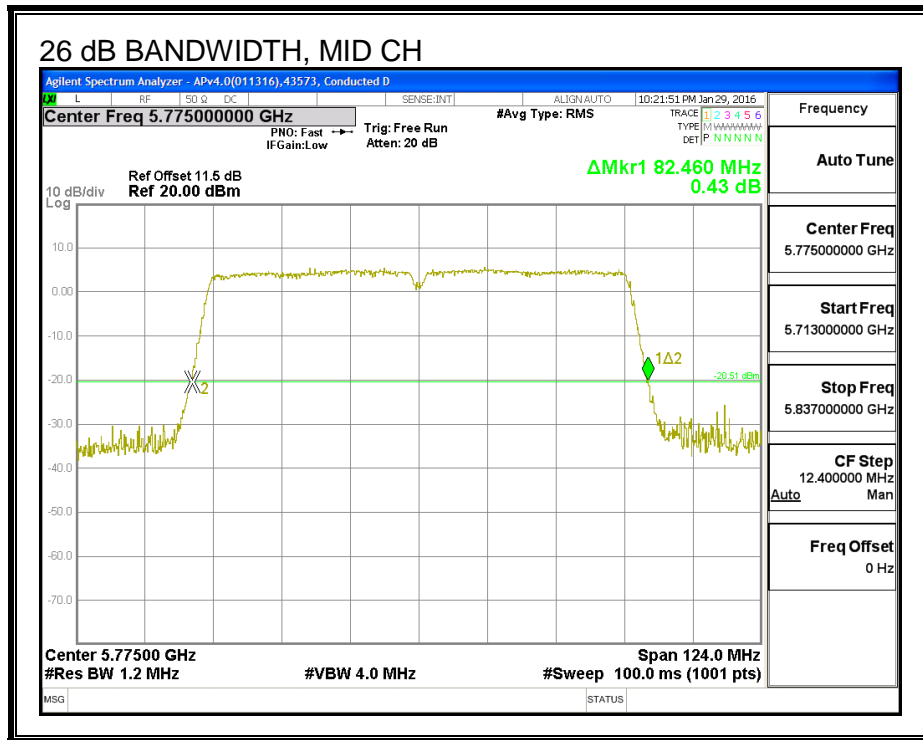
LIMITS

None, for reporting purposes only.

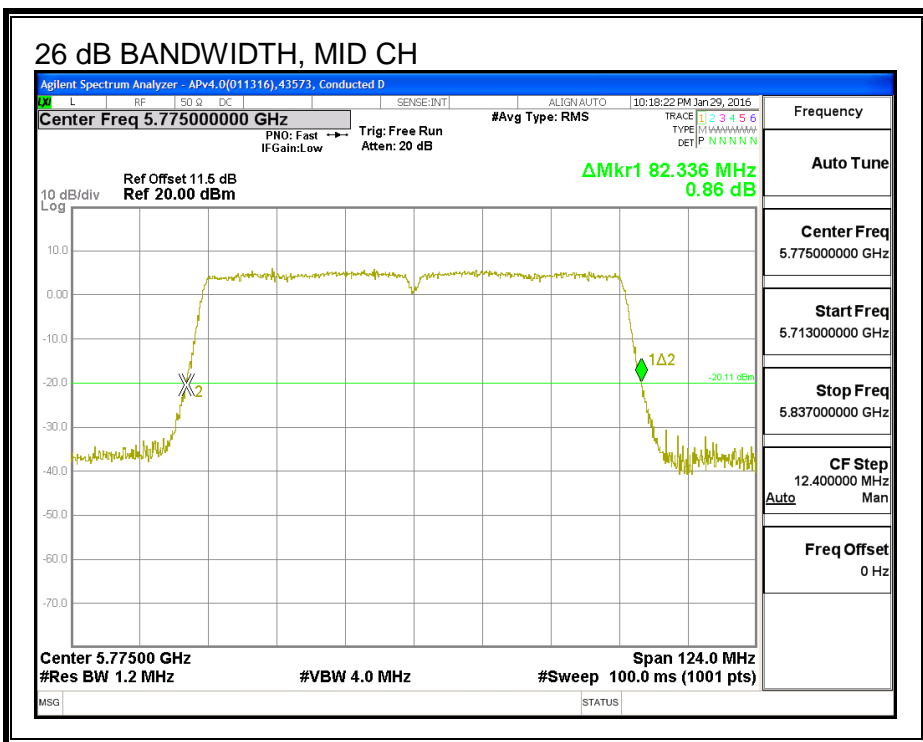
RESULTS

Channel	Frequency (MHz)	26 dB BW Antenna A (MHz)	26 dB BW Antenna C (MHz)
Mid	5775	82.46	82.34

26 dB BANDWIDTH, ANTENNA - A



26 dB BANDWIDTH, ANTENNA - C



8.132.3. 99% BANDWIDTH

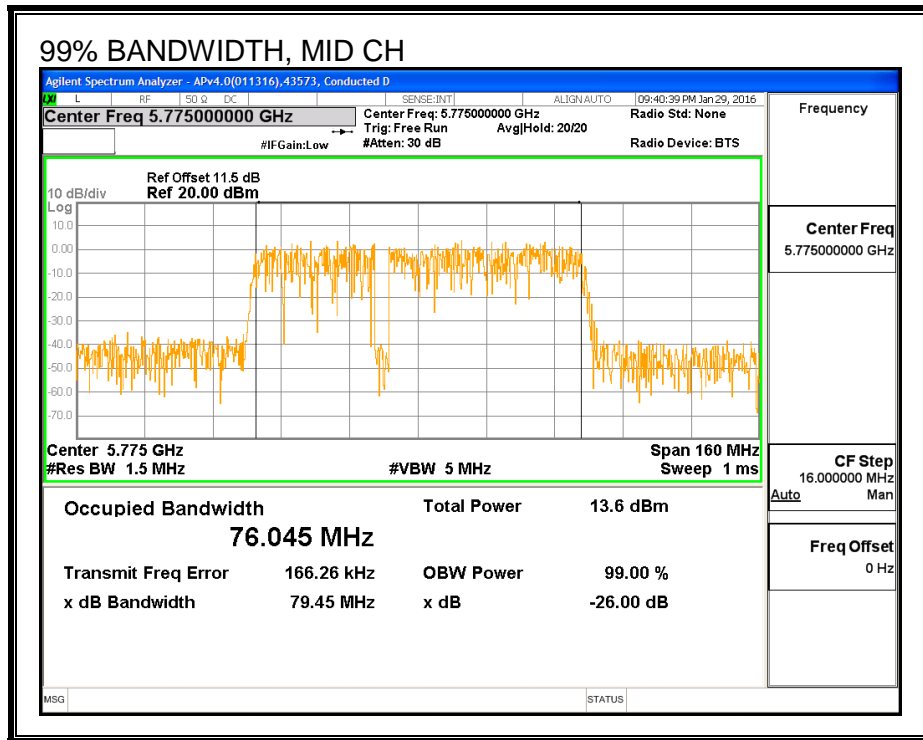
LIMITS

None; for reporting purposes only.

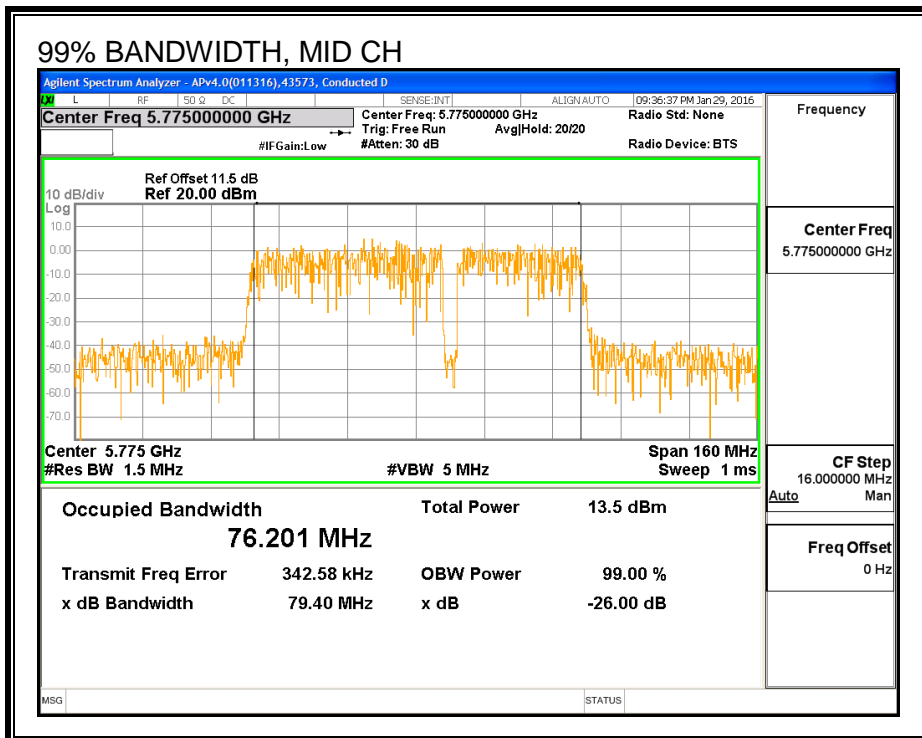
RESULTS

Channel	Frequency (MHz)	99% BW Antenna A (MHz)	99% BW Antenna C (MHz)
Mid	5775	76.045	76.201

99% BANDWIDTH, ANTENNA - A



99% BANDWIDTH, ANTENNA - C



8.132.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

Channel	Frequency (MHz)	Antenna A Power (dBm)	Antenna C Power (dBm)	Total Power (dBm)
Mid	5775	12.91	12.98	15.96

8.132.5. 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:

Antenna A	Antenna C	Uncorrelated Chains
Gain (dBi)	Gain (dBi)	Directional Gain (dBi)
4.16	3.92	4.04

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain (dBi)	Power Limit (dBm)
Mid	5775	4.04	30.00

Output Power Results

Channel	Frequency (MHz)	Antenna A Meas Power (dBm)	Antenna C Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Mid	5775	12.91	12.98	15.96	30.00	-14.04

8.132.6. 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:

Anetnna A	Antenna C	Correlated Chains
Gain	Gain	Directional
(dBi)	(dBi)	Gain
		(dBi)
4.16	3.92	7.05

RESULTS

Antenna Gain and Limit

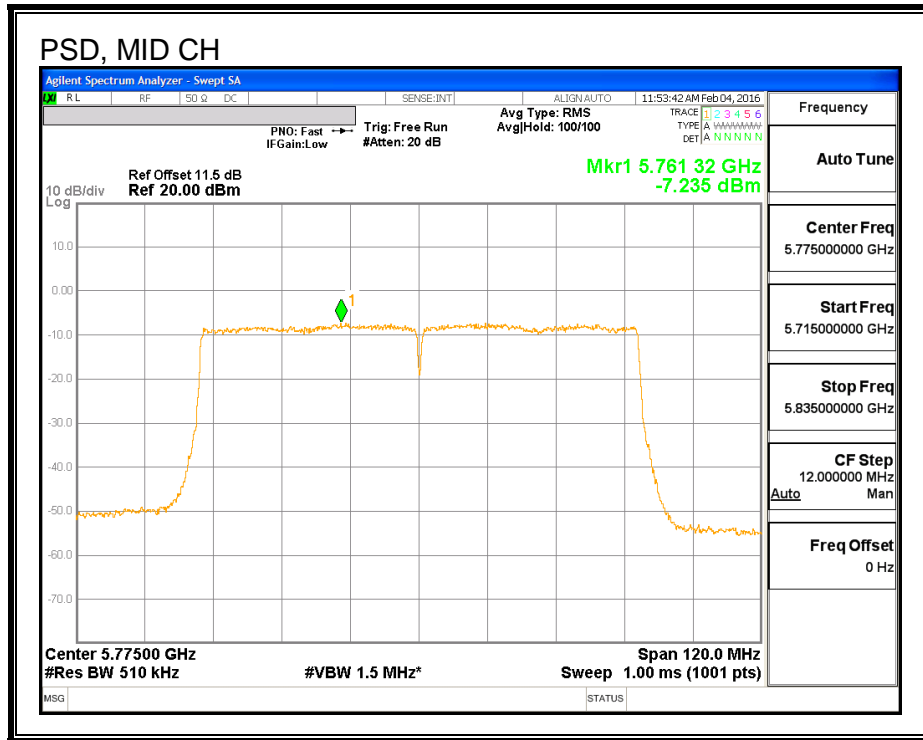
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Mid	5775	7.05	28.95

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd PSD
--------------------	------	----------------------------------------

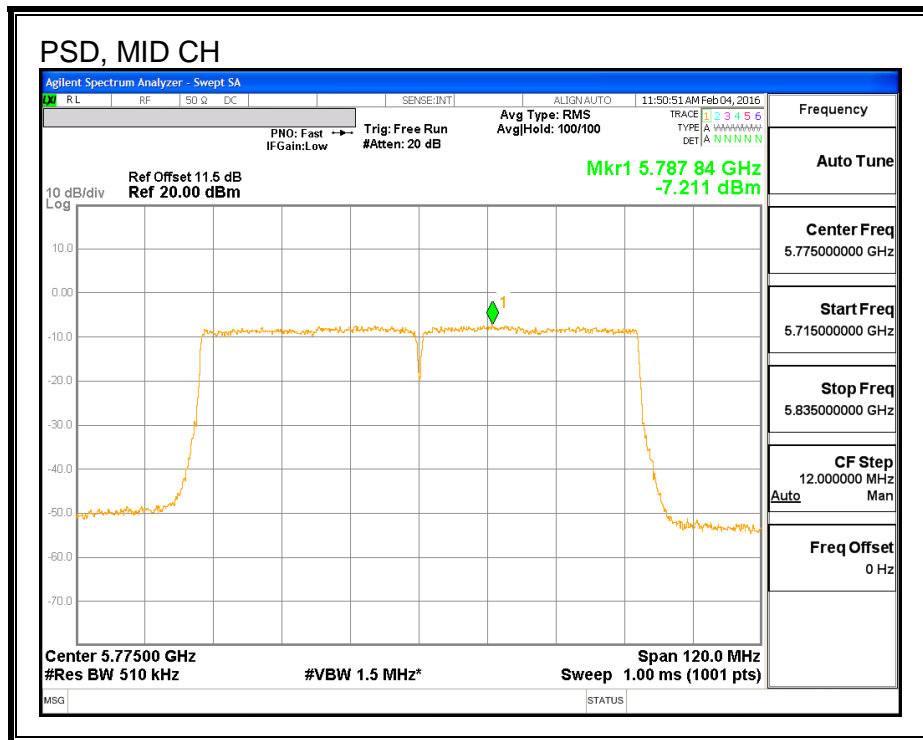
PSD Results

Channel	Frequency (MHz)	Antenna A Meas PSD (dBm)	Antenna C Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Mid	5775	-7.24	-7.21	-4.01	28.95	-32.96

PSD, ANTENNA - A



PSD, ANTENNA - C



8.133. 802.11ac VHT80 ANTENNA B+A STBC MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT80 ANTENNA B+A CDD MODE IN THE 5.8 GHz BAND

8.134. 802.11ac VHT80 ANTENNA A+C STBC MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT80 ANTENNA A+C CDD MODE IN THE 5.8 GHz BAND

8.135. 802.11ac VHT80 ANTENNA B+A SDM MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT80 ANTENNA B+A CDD MODE IN THE 5.8 GHz BAND

8.136. 802.11ac VHT80 ANTENNA A+C SDM MODE IN THE 5.8 GHz BAND

Noted: Covered by 802.11n HT80 ANTENNA A+C CDD MODE IN THE 5.8 GHz BAND

9. RADIATED TEST RESULTS

9.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for average measurements.

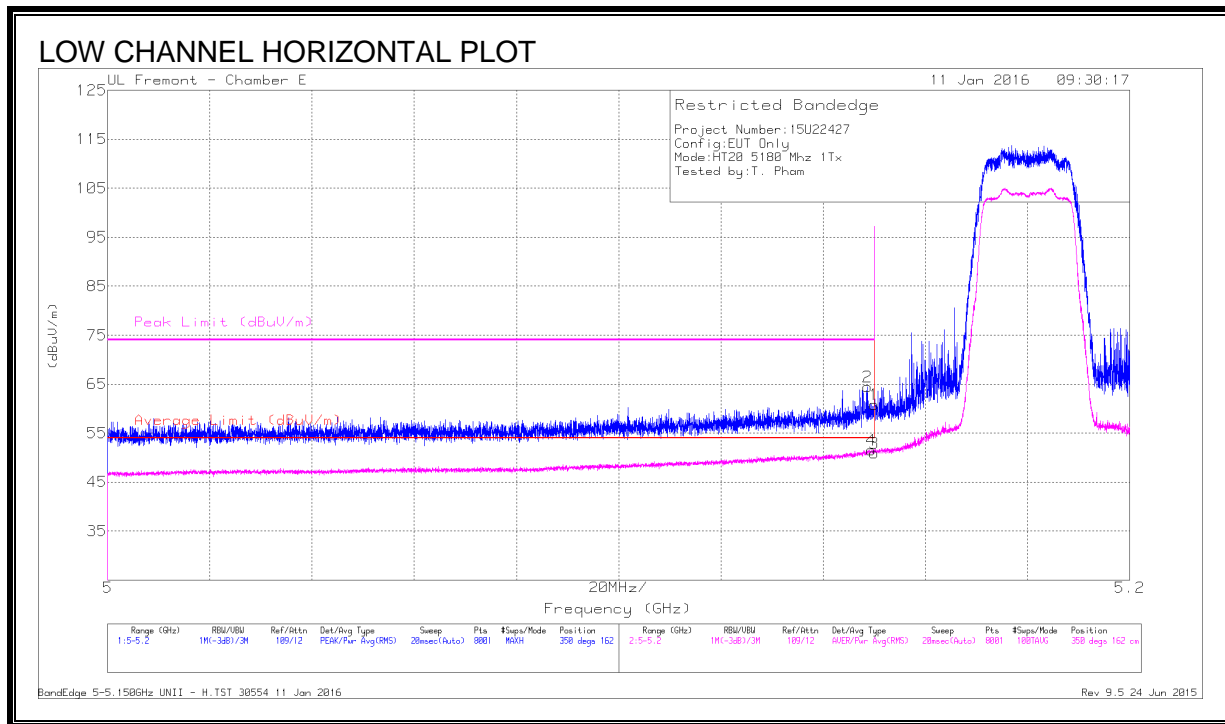
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Radiated emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

9.2. 802.11n HT20 1Tx MODE IN THE 5.2 GHz BAND

RESTRICTED BANDEDGE, ANTENNA - B (LOW CHANNEL)



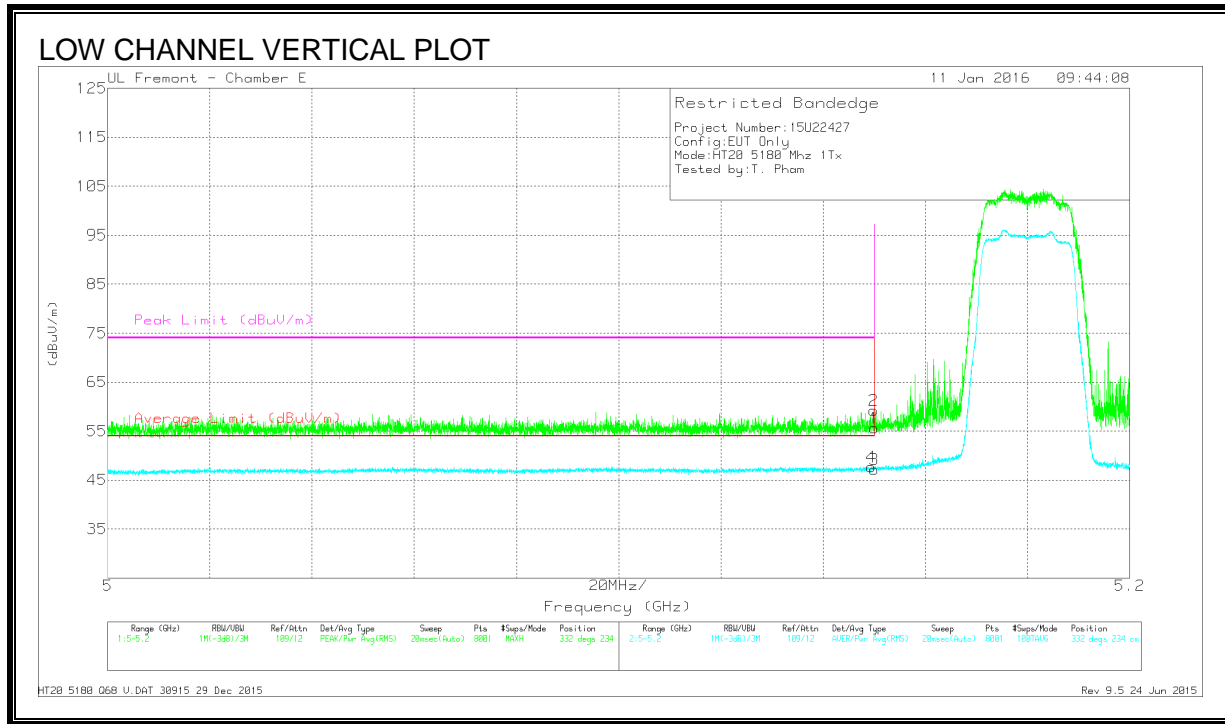
DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	45.59	Pk	34.3	-19	60.89	-	-	74	-13.11	350	162	H
2	* 5.149	49.09	Pk	34.3	-18.9	64.49	-	-	74	-9.51	350	162	H
3	* 5.15	35.58	RMS	34.3	-19	50.88	54	-3.12	-	-	350	162	H
4	* 5.149	36.22	RMS	34.3	-19	51.52	54	-2.48	-	-	350	162	H

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection



DATA

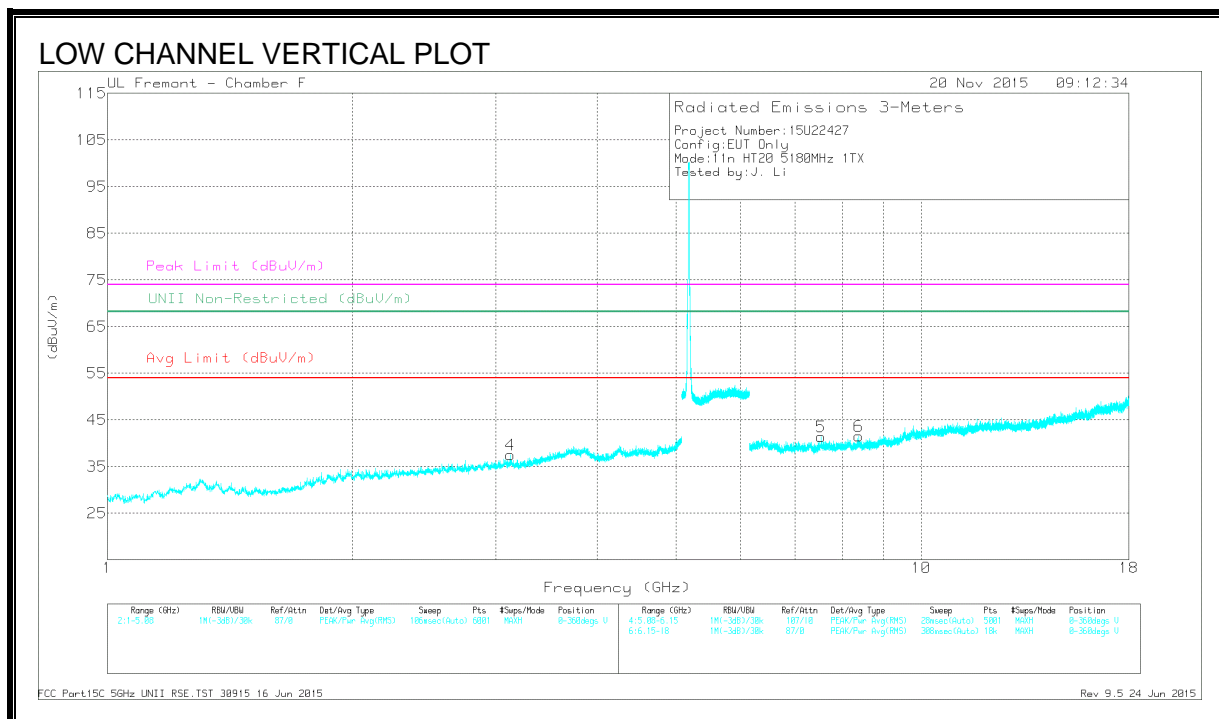
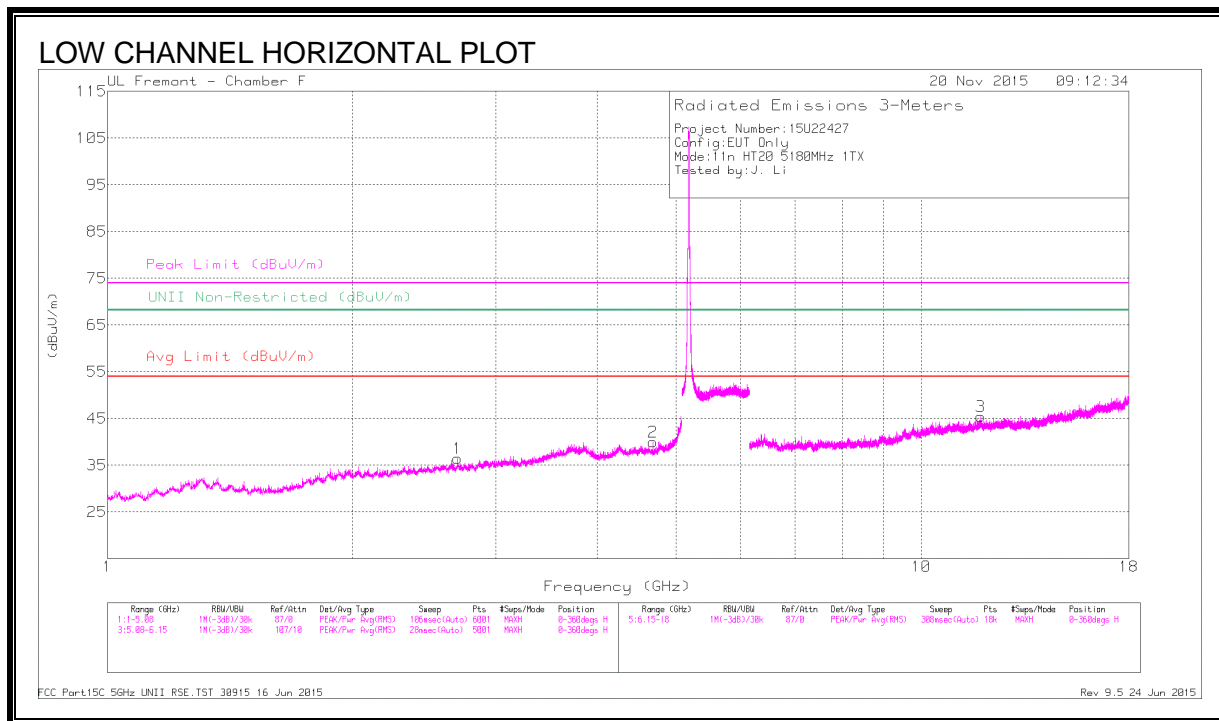
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T346 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	40.31	Pk	34.3	-19	55.61	-	-	74	-18.39	332	234	V
2	* 5.15	43.89	Pk	34.3	-19	59.19	-	-	74	-14.81	332	234	V
3	* 5.15	31.94	RMS	34.3	-19	47.24	54	-6.76	-	-	332	234	V
4	* 5.149	32.31	RMS	34.3	-18.9	47.71	54	-6.29	-	-	332	234	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

LOW CHANNEL HARMONICS AND SPURIOUS EMISSIONS (ANTENNA - B)



DATA

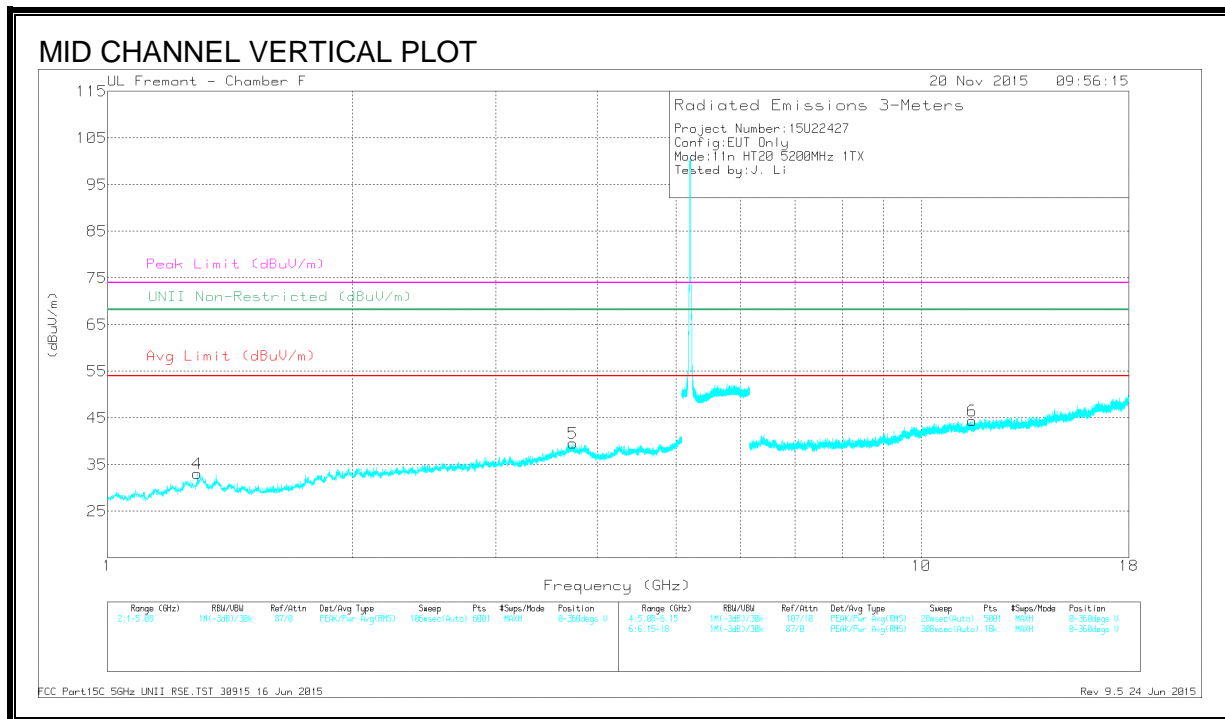
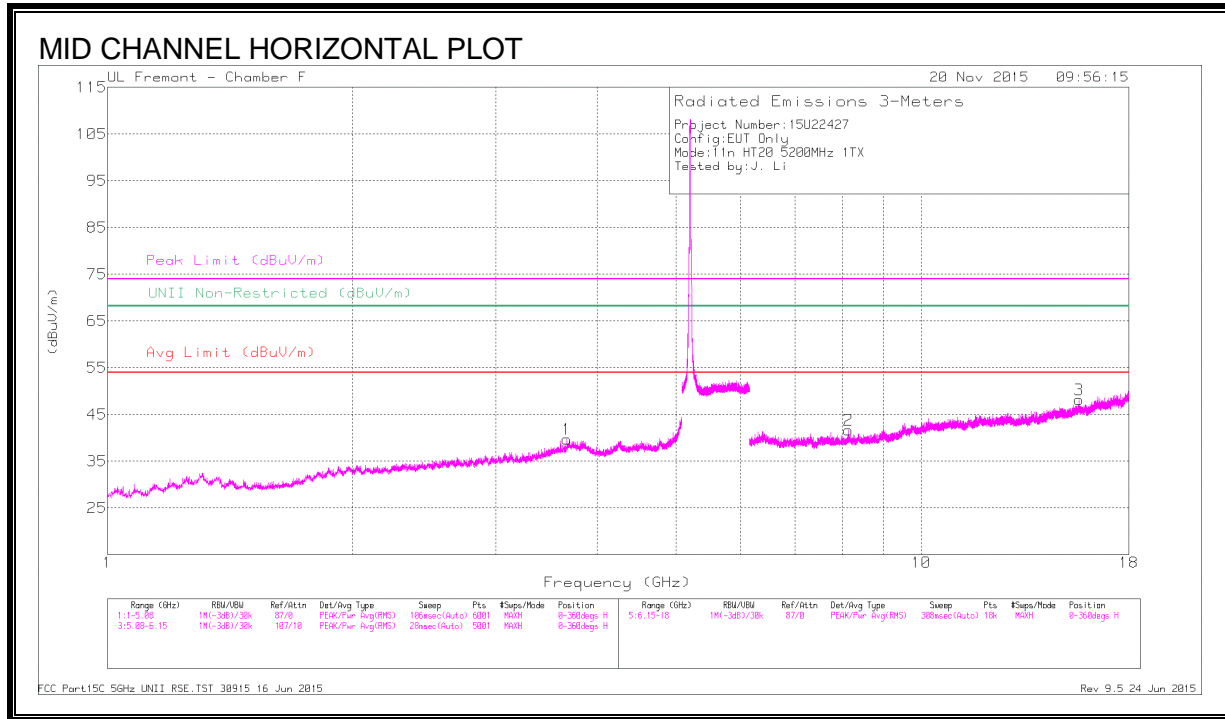
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 2.696	40.28	PK-U	32.7	-30.4	42.58	-	-	74	-31.42	-	-	213	275	H
	* 2.693	28.84	ADR	32.7	-30.3	31.24	54	-22.76	-	-	-	-	213	275	H
2	* 4.681	38.4	PK-U	34	-27.4	45	-	-	74	-29	-	-	244	130	H
	* 4.678	27.05	ADR	34	-27.4	33.65	54	-20.35	-	-	-	-	244	130	H
4	3.128	39.75	PK-U	33.2	-29.3	43.65	-	-	-	-	68.2	-24.55	84	186	V
3	* 11.833	35.23	PK-U	39	-22.3	51.93	-	-	74	-22.07	-	-	126	310	H
	* 11.833	23.47	ADR	39	-22.3	40.17	54	-13.83	-	-	-	-	126	310	H
5	* 7.536	36.16	PK-U	35.7	-24.9	46.96	-	-	74	-27.04	-	-	358	141	V
	* 7.537	25.14	ADR	35.7	-24.9	35.94	54	-18.06	-	-	-	-	358	141	V
6	* 8.38	36.6	PK-U	35.8	-24.4	48	-	-	74	-26	-	-	153	193	V
	* 8.381	24.79	ADR	35.8	-24.4	36.19	54	-17.81	-	-	-	-	153	193	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HARMONICS AND SPURIOUS EMISSIONS (ANTENNA - B)



DATA

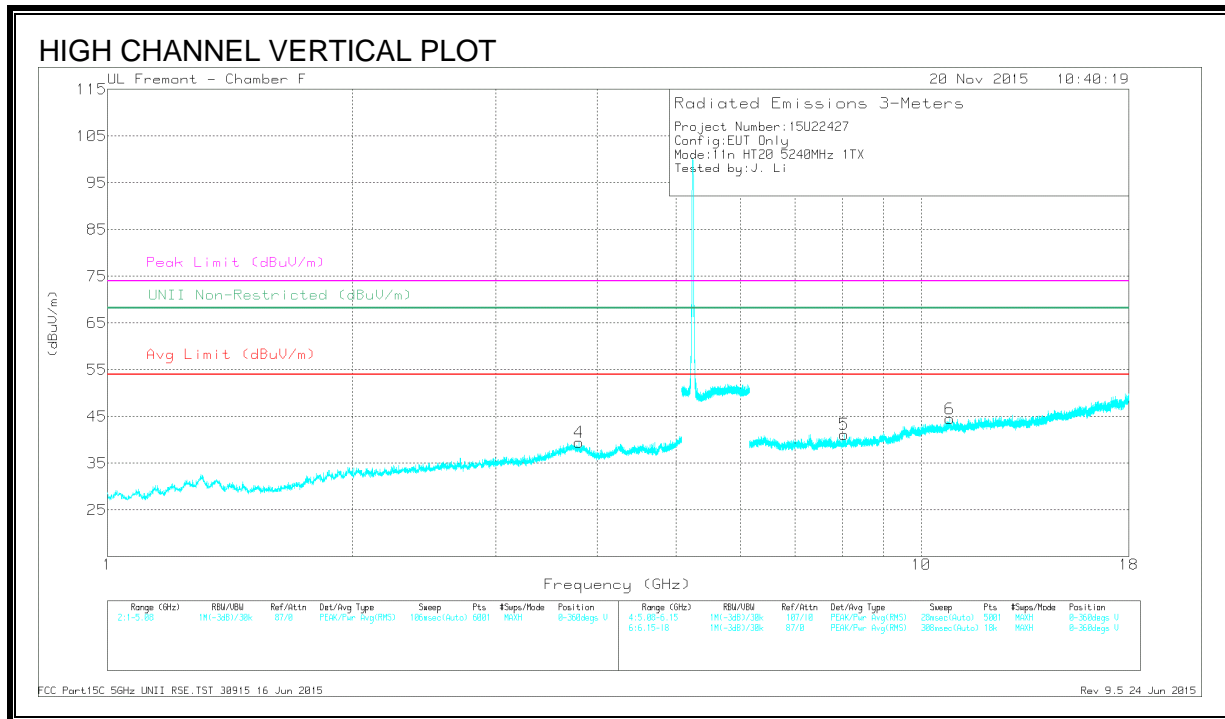
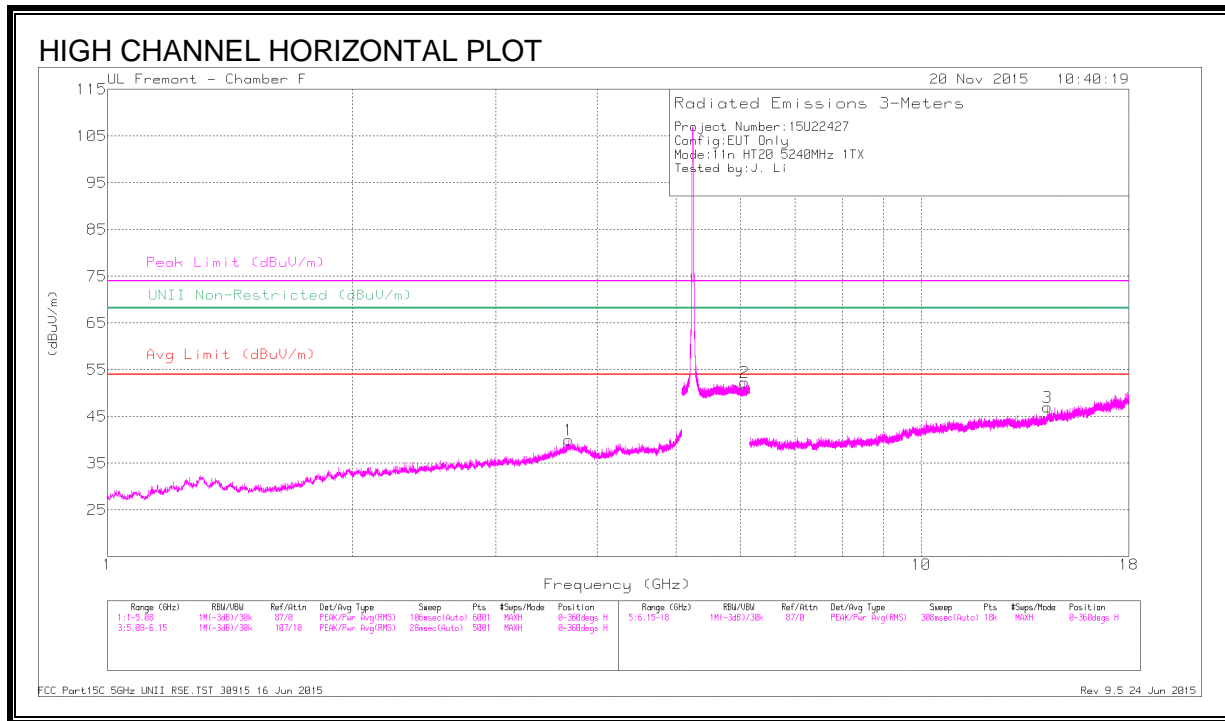
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cb/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.668	39.45	PK-U	34.8	-29	45.25	-	-	74	-28.75	-	-	212	307	H
	* 3.667	27.28	ADR	34.8	-29	33.08	54	-20.92	-	-	-	-	212	307	H
4	* 1.291	40.84	PK-U	29.9	-31.6	39.14	-	-	74	-34.86	-	-	159	142	V
	* 1.289	28.95	ADR	29.9	-31.6	27.25	54	-26.75	-	-	-	-	159	142	V
5	* 3.735	39.08	PK-U	34.5	-29.2	44.38	-	-	74	-29.62	-	-	118	201	V
	* 3.732	27.72	ADR	34.5	-29.2	33.02	54	-20.98	-	-	-	-	118	201	V
2	* 8.137	35.96	PK-U	35.8	-24.5	47.26	-	-	74	-26.74	-	-	177	233	H
	* 8.137	24.85	ADR	35.8	-24.5	36.15	54	-17.85	-	-	-	-	177	233	H
3	* 15.642	35.2	PK-U	40.6	-22.5	53.3	-	-	74	-20.7	-	-	110	142	H
	* 15.643	24.45	ADR	40.6	-22.5	42.55	54	-11.45	-	-	-	-	110	142	H
6	* 11.546	34.37	PK-U	38.6	-22.6	50.37	-	-	74	-23.63	-	-	96	128	V
	* 11.547	23.29	ADR	38.6	-22.7	39.19	54	-14.81	-	-	-	-	96	128	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

HIGH CHANNEL HARMONICS AND SPURIOUS EMISSIONS (ANTENNA - B)



DATA

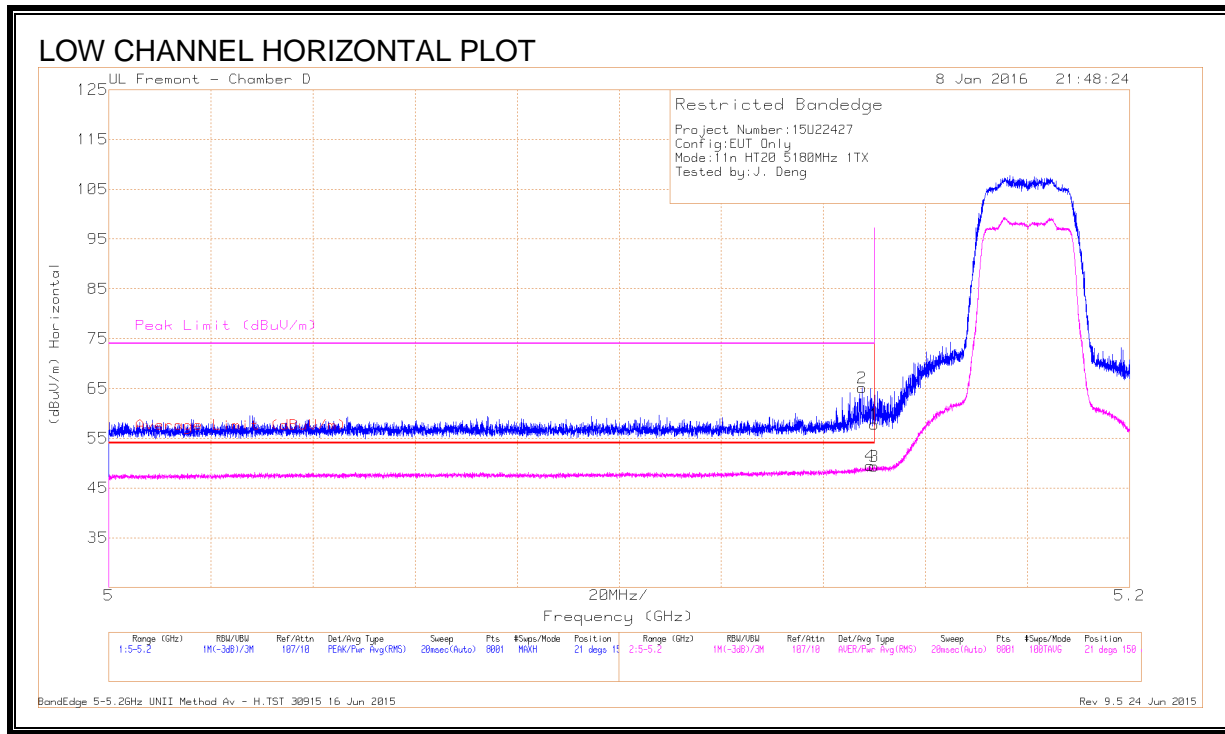
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fi tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.69	39.24	PK-U	34.7	-29	44.94	-	-	74	-29.06	-	-	332	157	H
	* 3.689	27.49	ADR	34.7	-29	33.19	54	-20.81	-	-	-	-	332	157	H
4	* 3.798	39.67	PK-U	34.2	-29.4	44.47	-	-	74	-29.53	-	-	243	185	V
	* 3.799	27.7	ADR	34.1	-29.4	32.4	54	-21.6	-	-	-	-	243	185	V
2	6.065	41.16	PK-U	35.5	-18.4	58.26	-	-	-	-	68.2	-9.94	170	209	H
3	14.306	36.65	PK-U	39.6	-23.6	52.65	-	-	-	-	68.2	-15.55	92	288	H
5	* 8.042	36.29	PK-U	35.8	-25.3	46.79	-	-	74	-27.21	-	-	155	166	V
	* 8.042	25.19	ADR	35.8	-25.3	35.69	54	-18.31	-	-	-	-	155	166	V
6	* 10.842	34	PK-U	38.1	-21.7	50.4	-	-	74	-23.6	-	-	119	140	V
	* 10.845	22.95	ADR	38.1	-21.7	39.35	54	-14.65	-	-	-	-	119	140	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

RESTRICTED BANDEDGE, ANTENNA - A (LOW CHANNEL)



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T344 (dB/m)	Amp/Cbl/Filtr/Pad (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.15	41.99	Pk	34.3	-18.5	57.79	-	-	74	-16.21	21	150	H
2	* 5.148	49.32	Pk	34.3	-18.5	65.12	-	-	74	-8.88	21	150	H
3	* 5.15	33.56	RMS	34.3	-18.5	49.36	54	-4.64	-	-	21	150	H
4	* 5.149	33.67	RMS	34.3	-18.5	49.47	54	-4.53	-	-	21	150	H

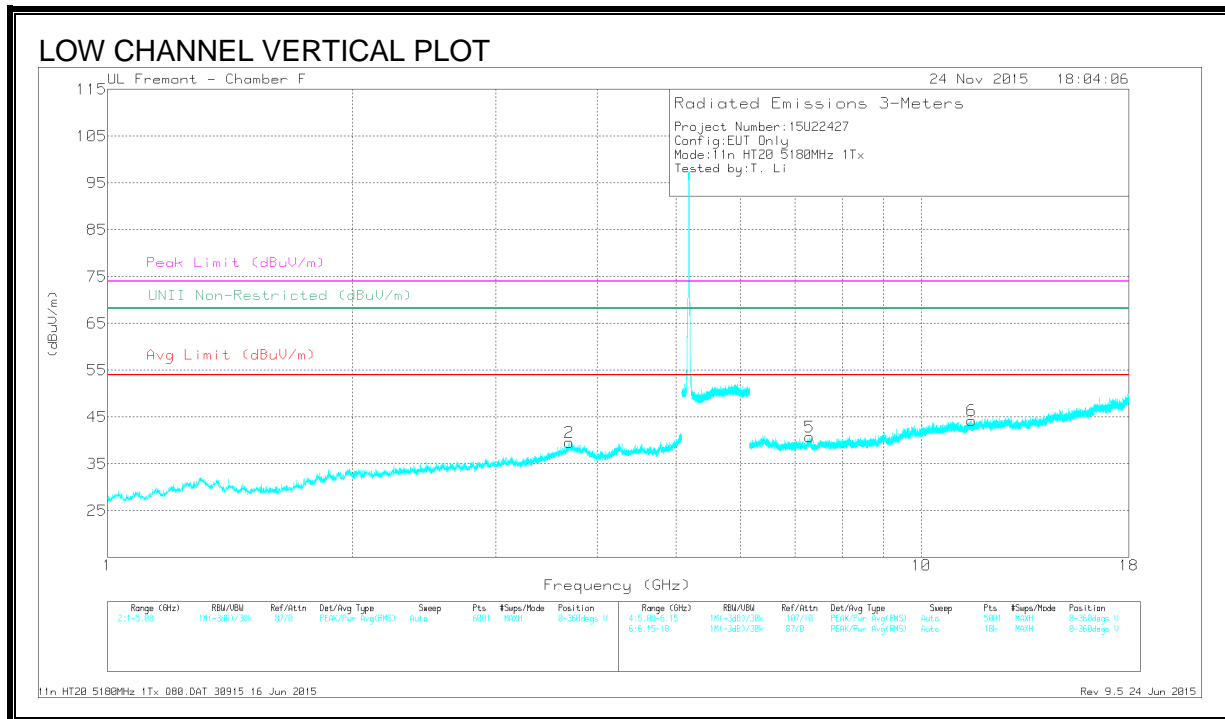
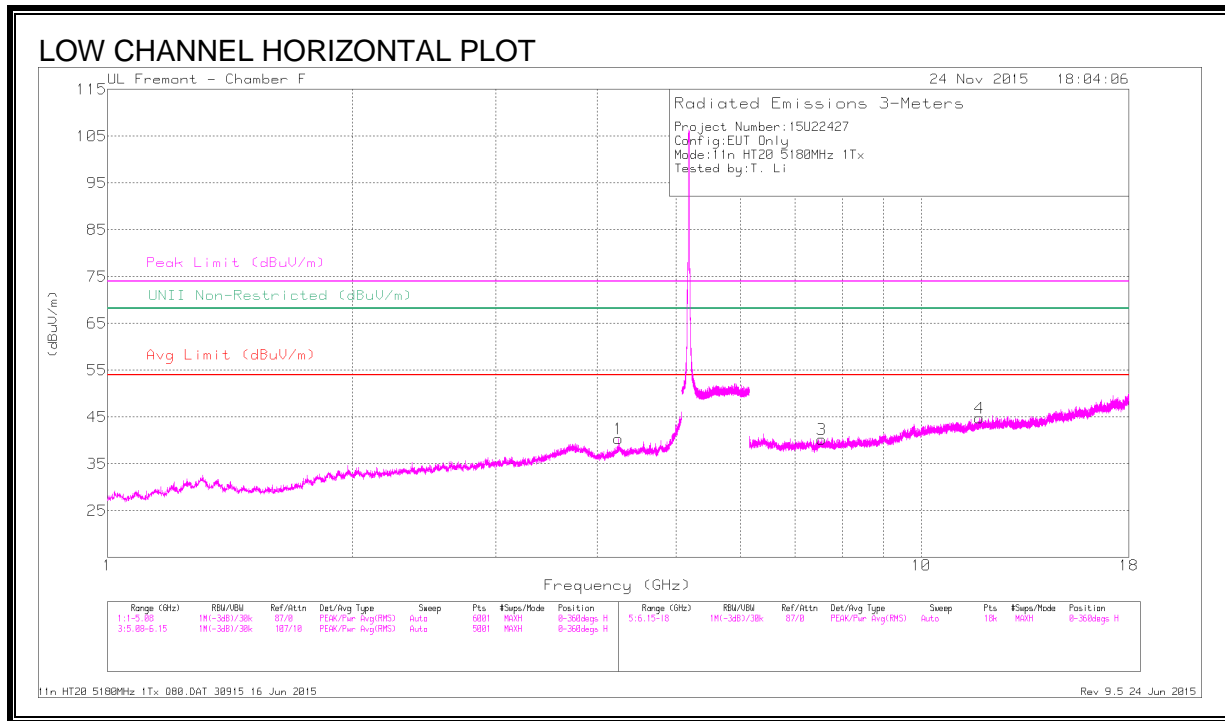
* - indicates frequency in CFR15.205/IC8.10 Restricted Band

Pk - Peak detector

RMS - RMS detection

BandEdge 5-5.2GHz UNII Method Av - H.TST 30915 16 Jun 2015

LOW CHANNEL HARMONICS AND SPURIOUS EMISSIONS (ANTENNA - A)



DATA

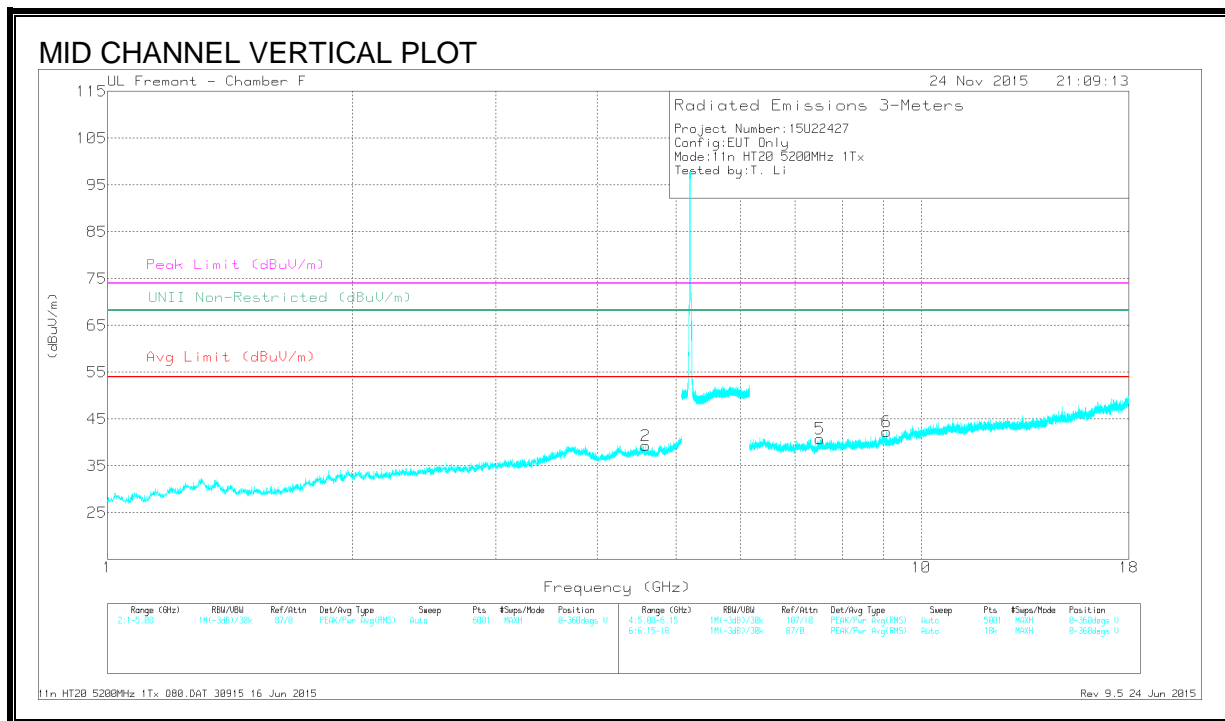
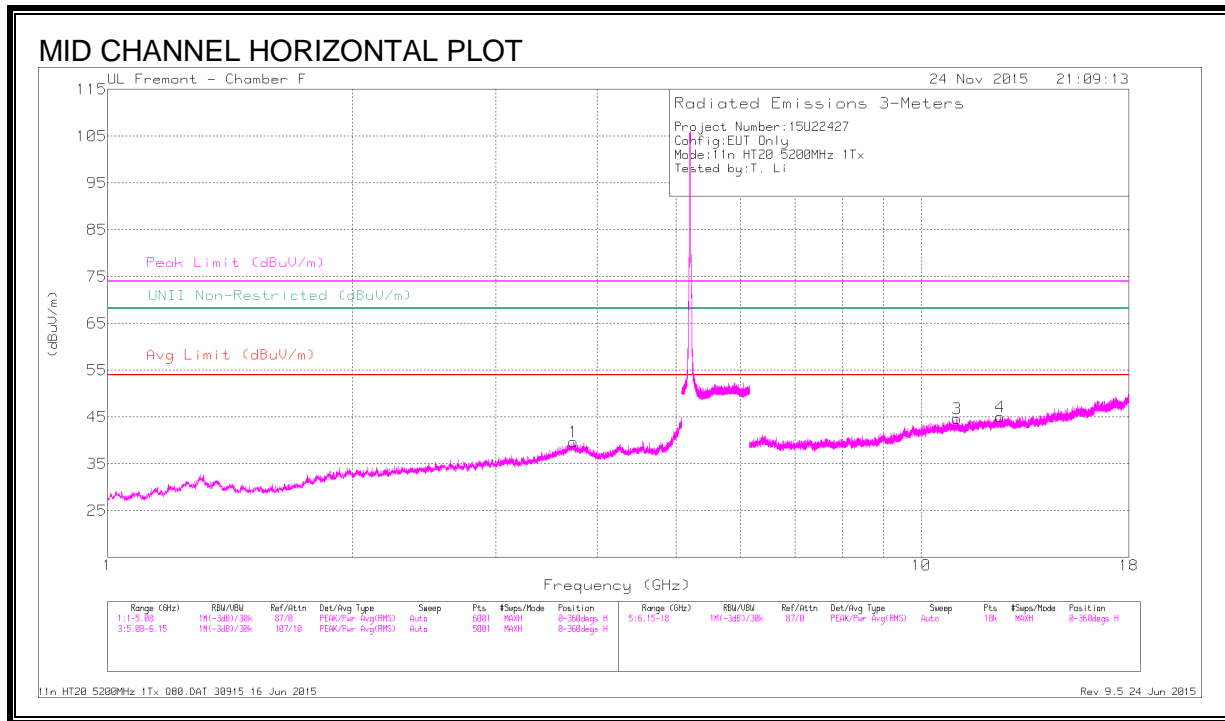
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/FI tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 4.243	37.42	PK-U	33.6	-26.7	44.32	-	-	74	-29.68	-	-	95	286	H
	* 4.243	26.45	ADR	33.6	-26.7	33.35	54	-20.65	-	-	-	-	95	286	H
2	* 3.696	38.73	PK-U	34.7	-29.1	44.33	-	-	74	-29.67	-	-	163	202	V
	* 3.697	27.57	ADR	34.7	-29.1	33.17	54	-20.83	-	-	-	-	163	202	V
3	* 7.541	36.38	PK-U	35.8	-24.9	47.28	-	-	74	-26.72	-	-	235	269	H
	* 7.542	24.98	ADR	35.8	-24.9	35.88	54	-18.12	-	-	-	-	235	269	H
4	* 11.798	35.41	PK-U	39	-22.3	52.11	-	-	74	-21.89	-	-	120	129	H
	* 11.799	23.43	ADR	39	-22.3	40.13	54	-13.87	-	-	-	-	120	129	H
5	* 7.297	37.05	PK-U	35.7	-25.4	47.35	-	-	74	-26.65	-	-	346	359	V
	* 7.296	25.86	ADR	35.7	-25.4	36.16	54	-17.84	-	-	-	-	346	359	V
6	* 11.54	34.06	PK-U	38.6	-22.7	49.96	-	-	74	-24.04	-	-	193	247	V
	* 11.541	23.31	ADR	38.6	-22.7	39.21	54	-14.79	-	-	-	-	193	247	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average

MID CHANNEL HARMONICS AND SPURIOUS EMISSIONS (ANTENNA - A)



DATA

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	AF T120 (dB/m)	Amp/Cbl/Fi tr/Pad (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	UNII Non-Restricted (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 3.74	39	PK-U	34.5	-29.3	44.2	-	-	74	-29.8	-	-	200	212	H
	* 3.74	27.61	ADR	34.5	-29.3	32.81	54	-21.19	-	-	-	-	200	212	H
2	* 4.583	39.02	PK-U	34	-28.2	44.82	-	-	74	-29.18	-	-	175	322	V
	* 4.583	27.6	ADR	34	-28.2	33.4	54	-20.6	-	-	-	-	175	322	V
3	* 11.064	33.98	PK-U	38.1	-22	50.08	-	-	74	-23.92	-	-	97	232	H
	* 11.066	23.06	ADR	38.1	-22	39.16	54	-14.84	-	-	-	-	97	232	H
4	* 12.517	35.17	PK-U	39.2	-23.1	51.27	-	-	74	-22.73	-	-	293	326	H
	* 12.517	23.98	ADR	39.2	-23.1	40.08	54	-13.92	-	-	-	-	293	326	H
5	* 7.514	36.5	PK-U	35.7	-25.3	46.9	-	-	74	-27.1	-	-	235	297	V
	* 7.515	25.34	ADR	35.7	-25.2	35.84	54	-18.16	-	-	-	-	235	297	V
6	* 9.067	34.79	PK-U	36.1	-23.7	47.19	-	-	74	-26.81	-	-	165	268	V
	* 9.07	24.04	ADR	36.1	-23.7	36.44	54	-17.56	-	-	-	-	165	268	V

* - indicates frequency in CFR15.205/IC8.10 Restricted Band

PK-U - U-NII: Maximum Peak

ADR - U-NII AD primary method, RMS average