

8.45. 802.11ac VHT80 CHAIN 0 MODE IN THE 5.6 GHz BAND

8.45.1. 26 dB BANDWIDTH

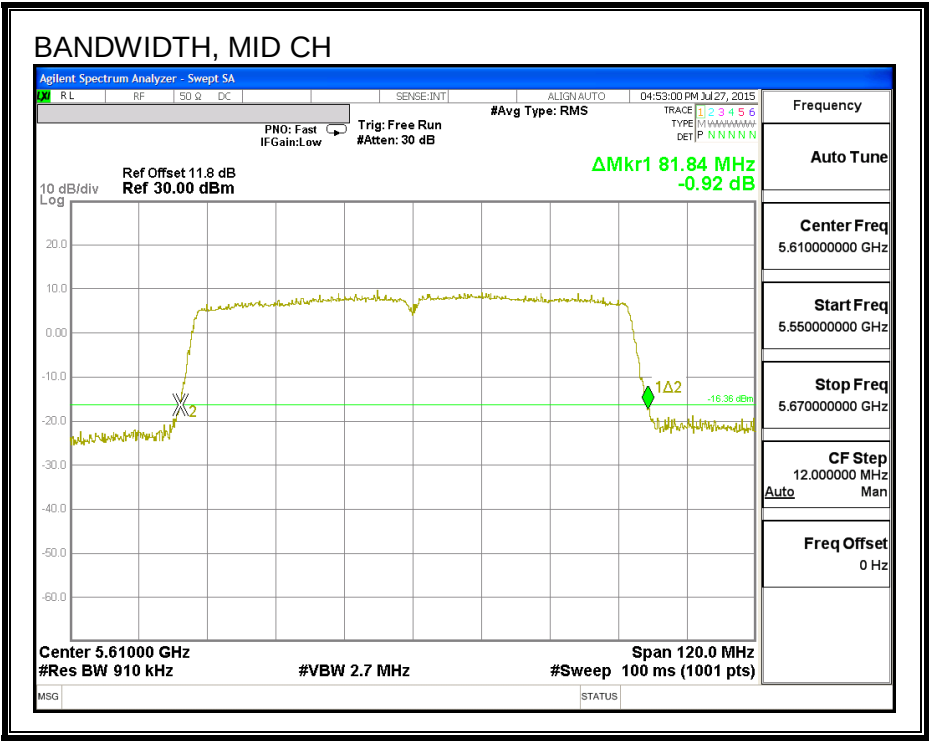
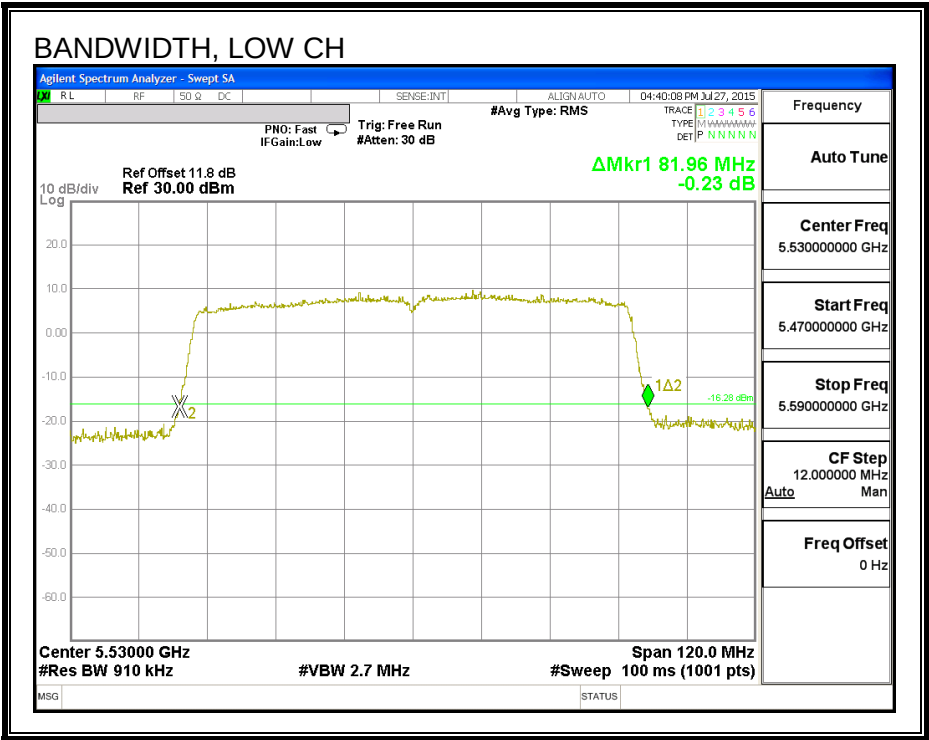
LIMITS

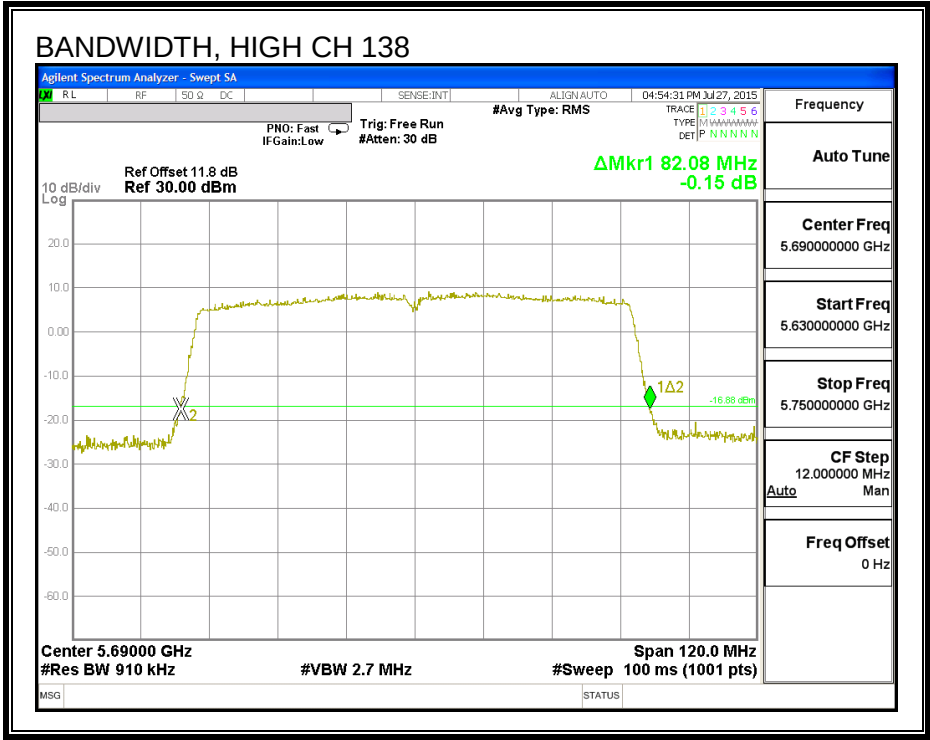
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5530	81.96
Mid	5610	81.84
High	5690	82.08

26 dB BANDWIDTH





8.45.2. 99% BANDWIDTH

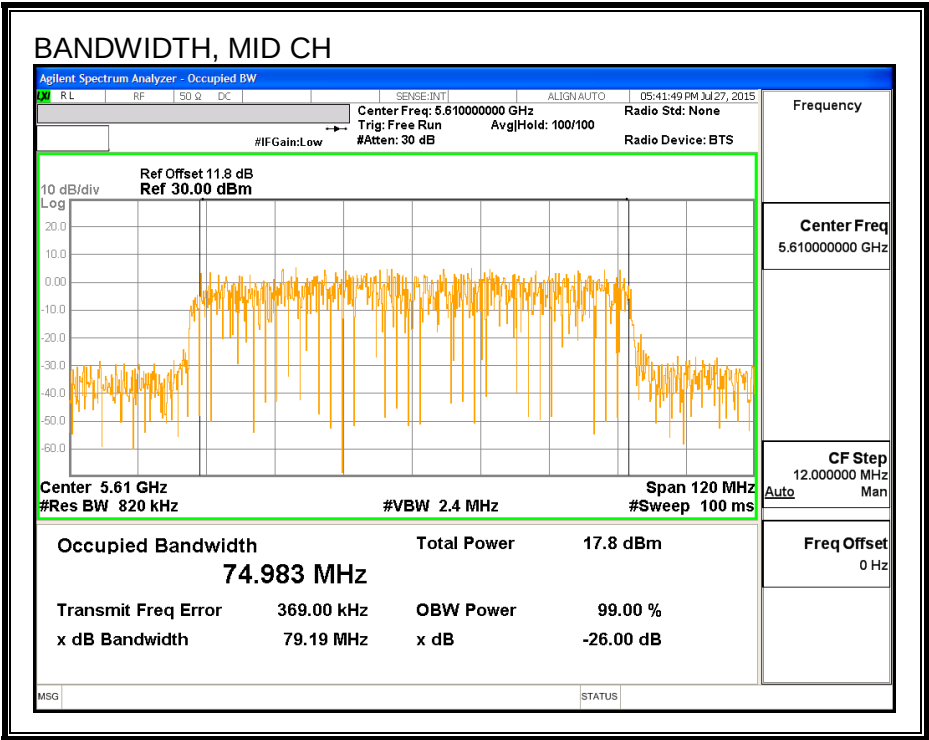
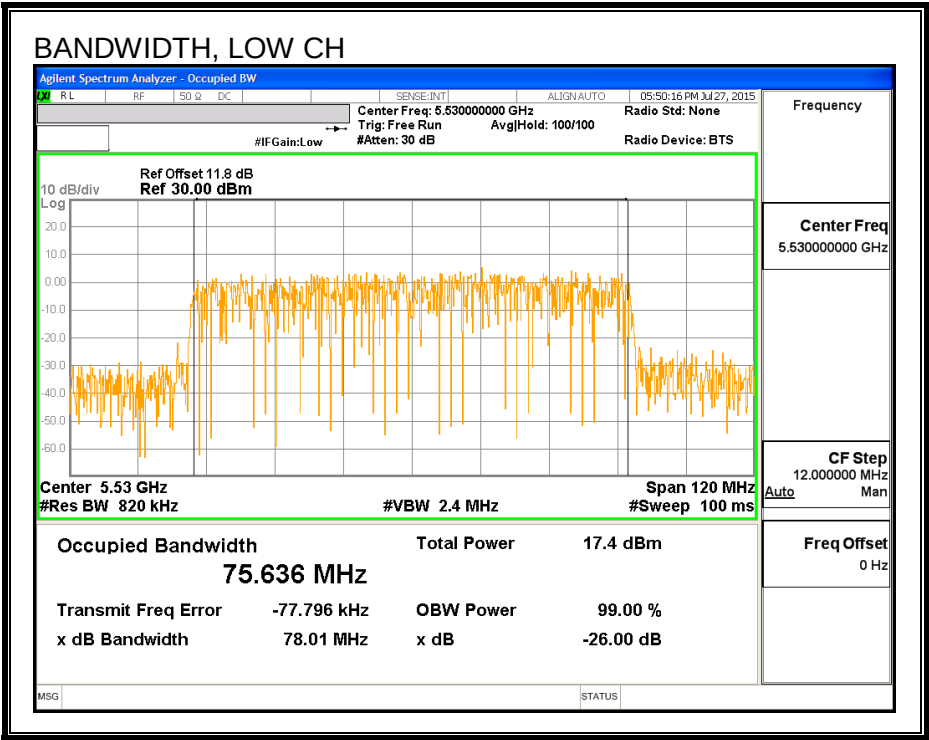
LIMITS

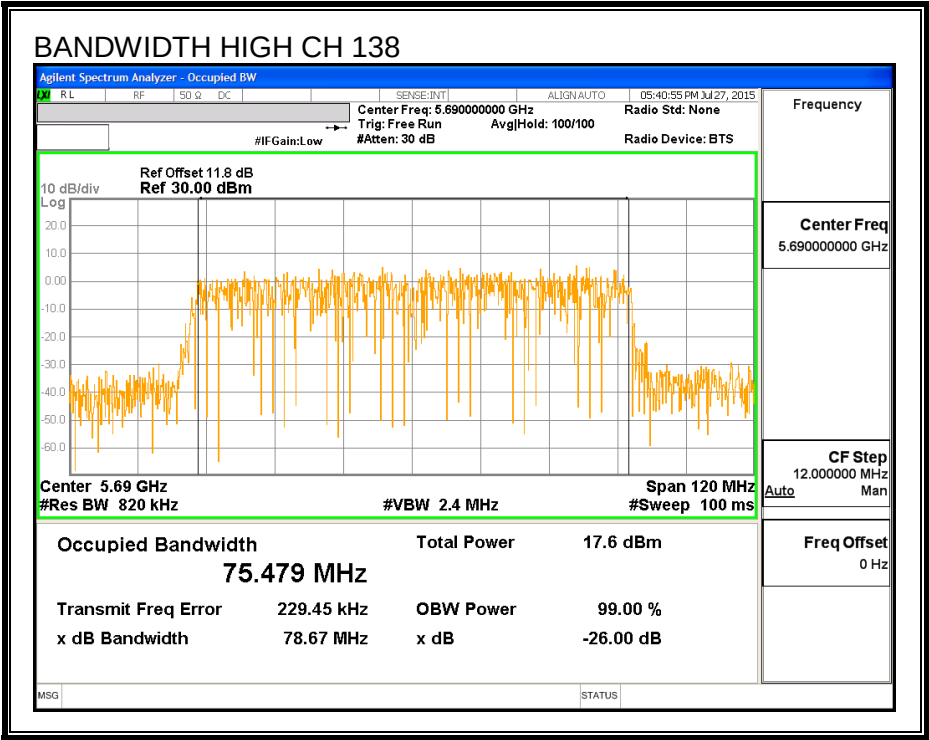
None; for reporting purposes only.

RESULTS

Frequency (MHz)	99% Bandwidth (MHz)
5530	75.636
5610	74.983
5690	75.479

99% BANDWIDTH





8.45.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5530	14.23
Mid	5610	15.19
High	5690	15.33

8.45.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26-dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1-MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak 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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5530	81.96	75.636	2.70	24.00	11.00
High	5610	81.84	74.983	2.70	24.00	11.00

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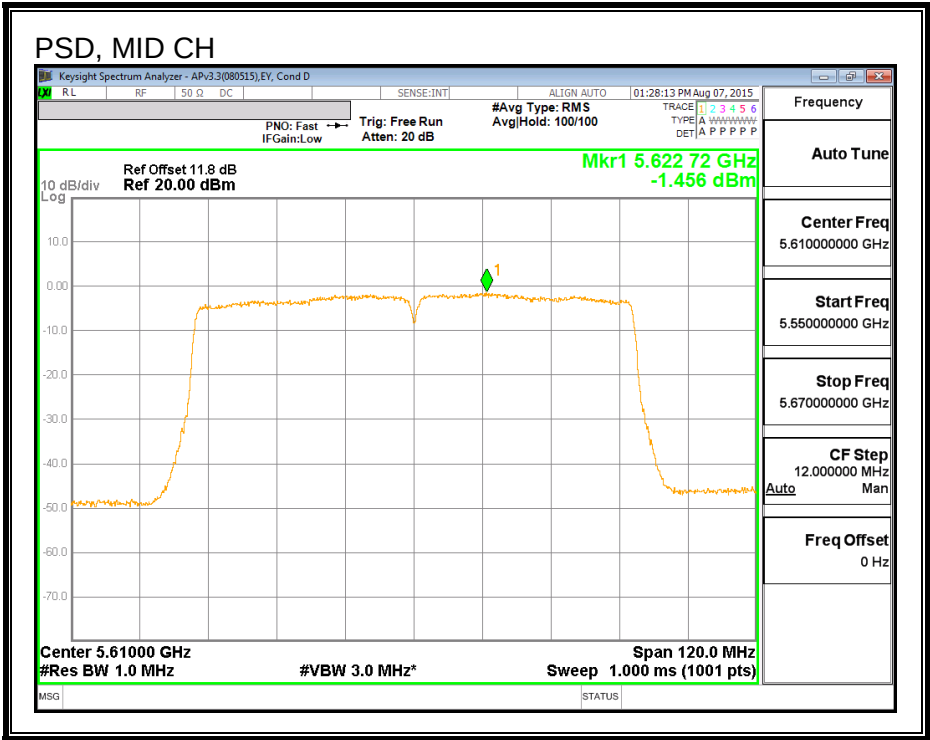
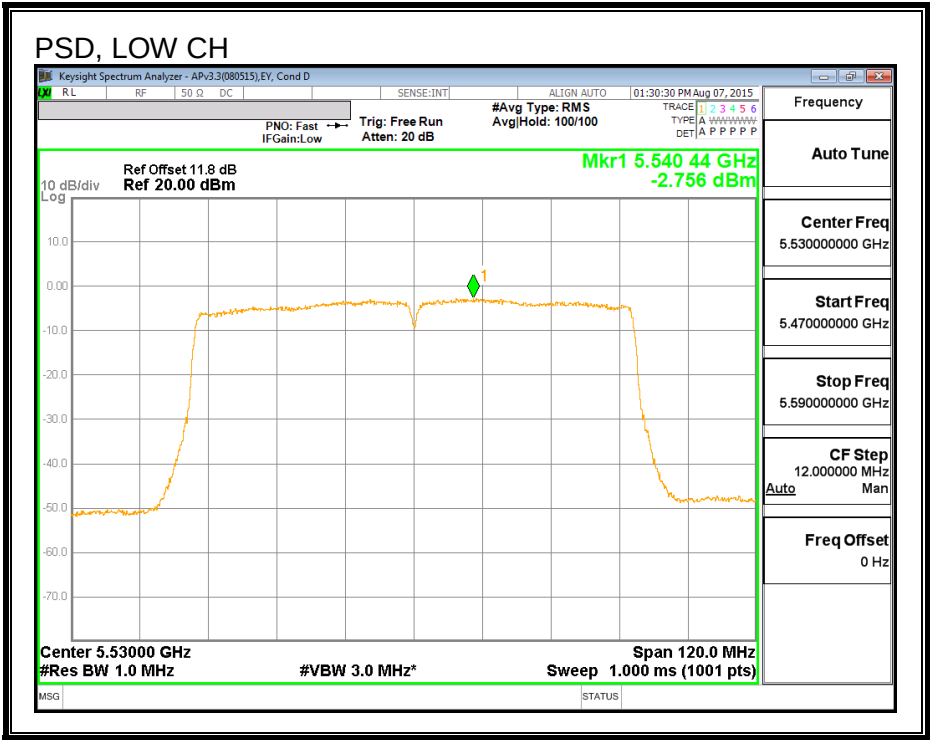
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	14.07	14.23	24.00	-9.77
High	5610	15.03	15.19	24.00	-8.81

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5530	-2.76	-2.60	11.00	-13.60
High	5610	-1.46	-1.30	11.00	-12.30

PSD,



8.45.5. STRADDLE CHANNEL 138 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	76.04	2.70	2.70	24.00	11.00

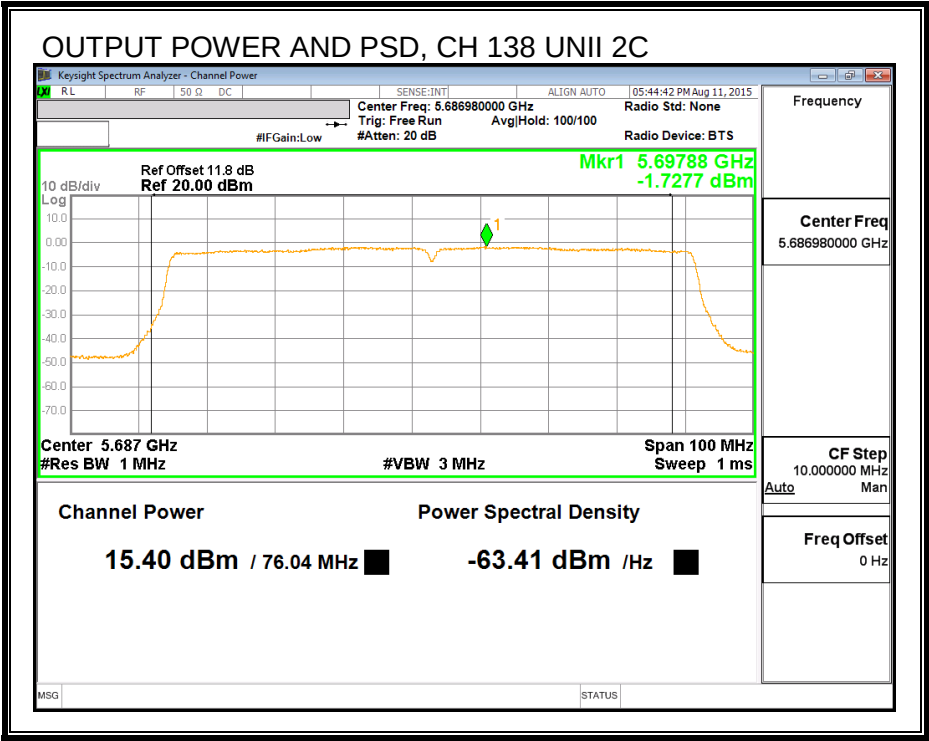
Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	15.40	15.56	24.00	-8.44

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-1.73	-1.57	11.00	-12.57



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	6.04	2.70	30.00	30.00

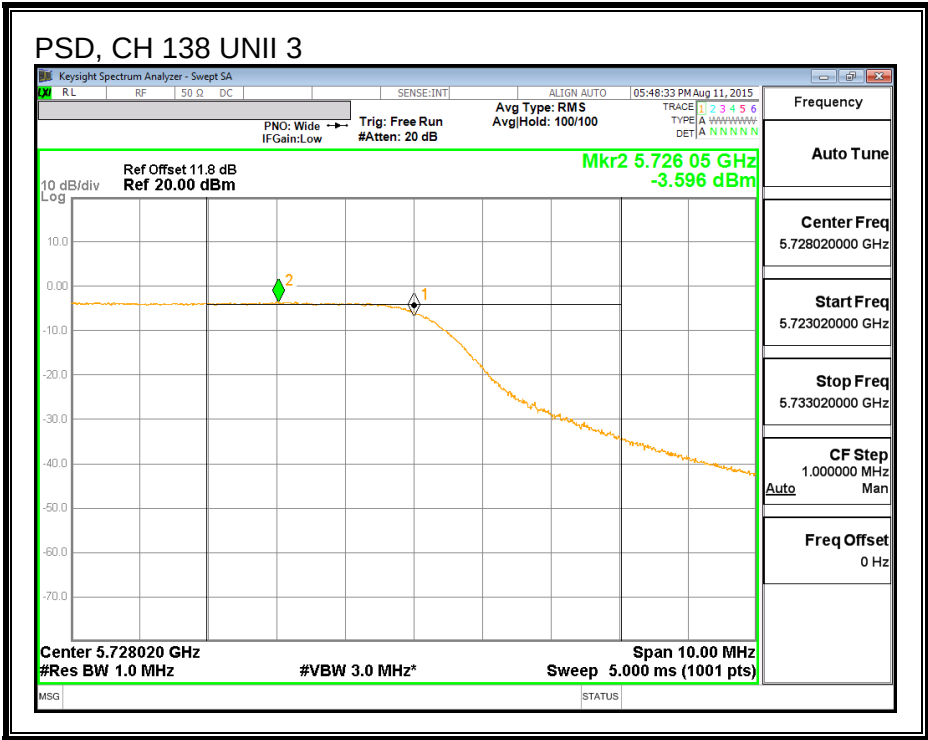
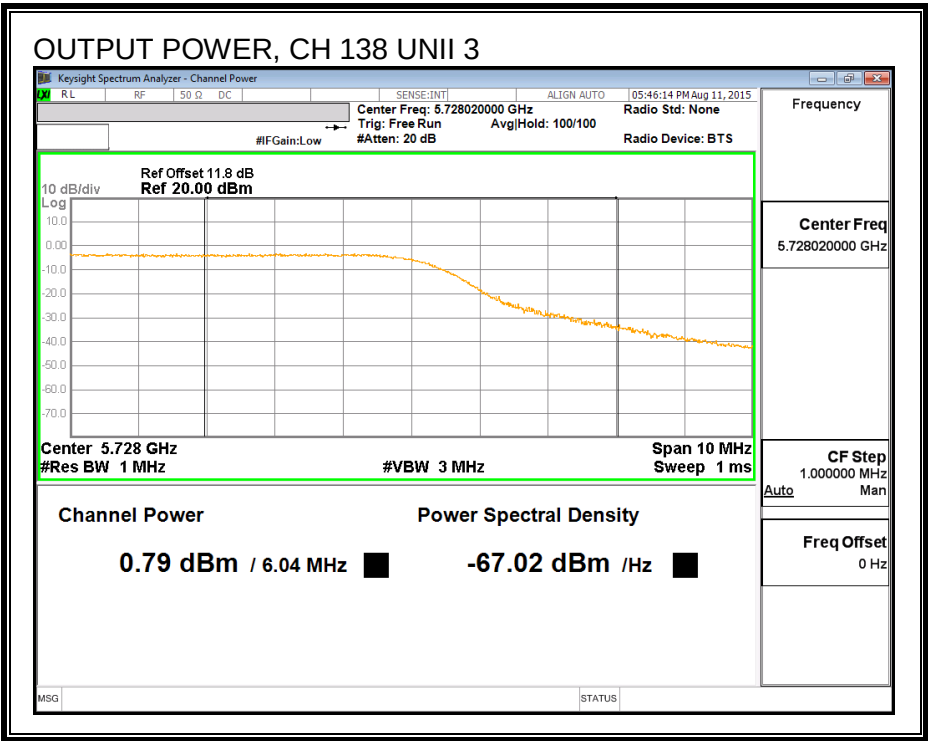
Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	0.79	0.95	30.00	-29.05

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-3.60	-3.44	30.00	-33.44



8.46. 802.11ac VHT80 CHAIN 1 MODE IN THE 5.6 GHz BAND

8.46.1. 26 dB BANDWIDTH

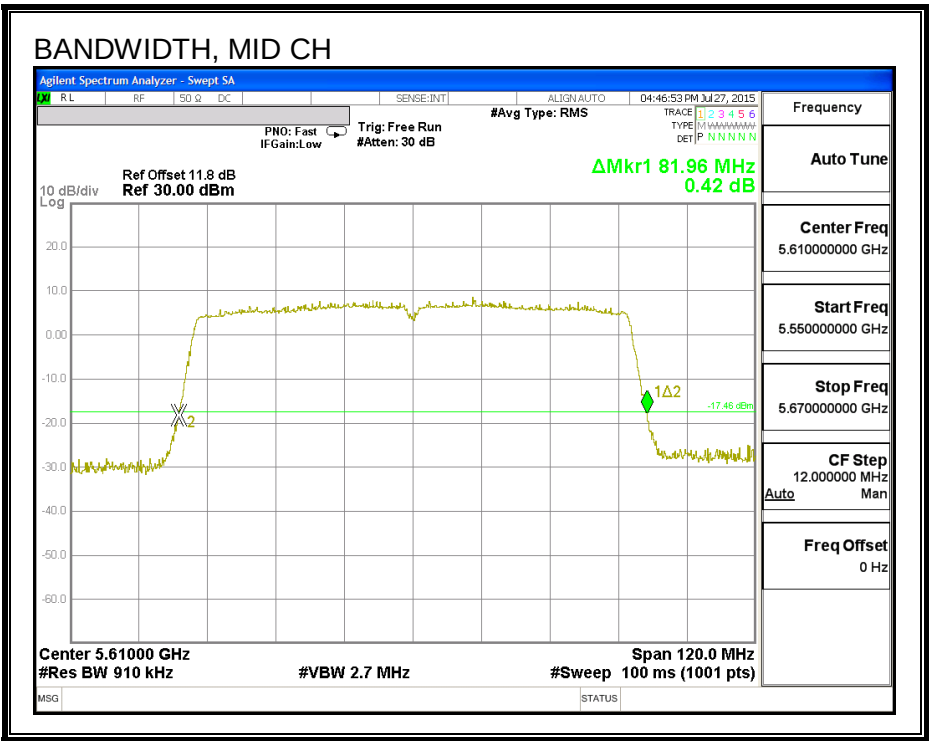
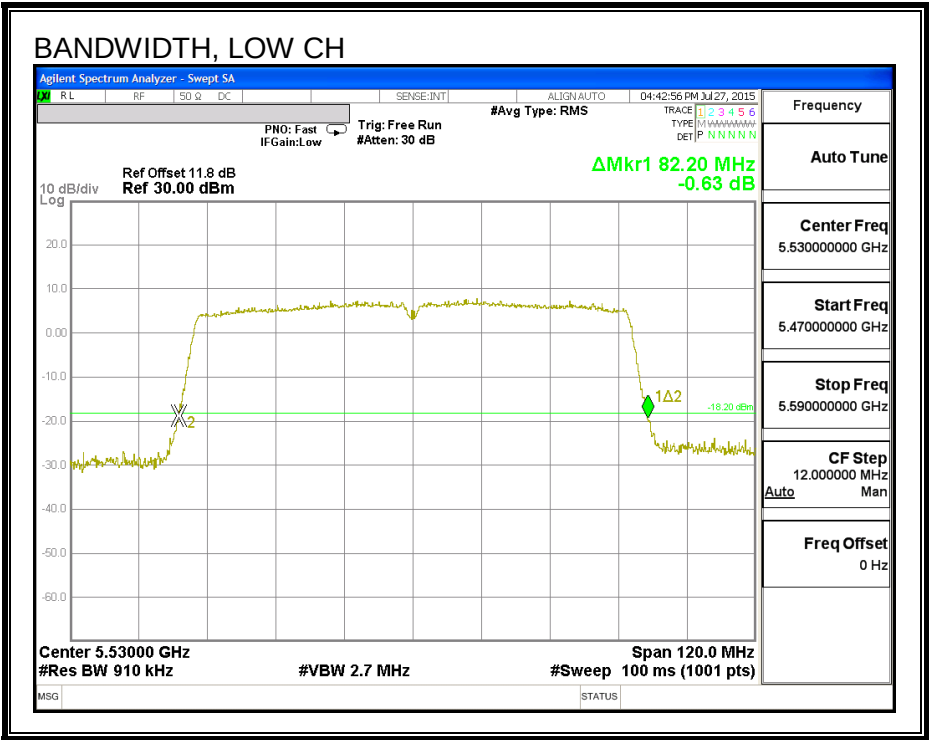
LIMITS

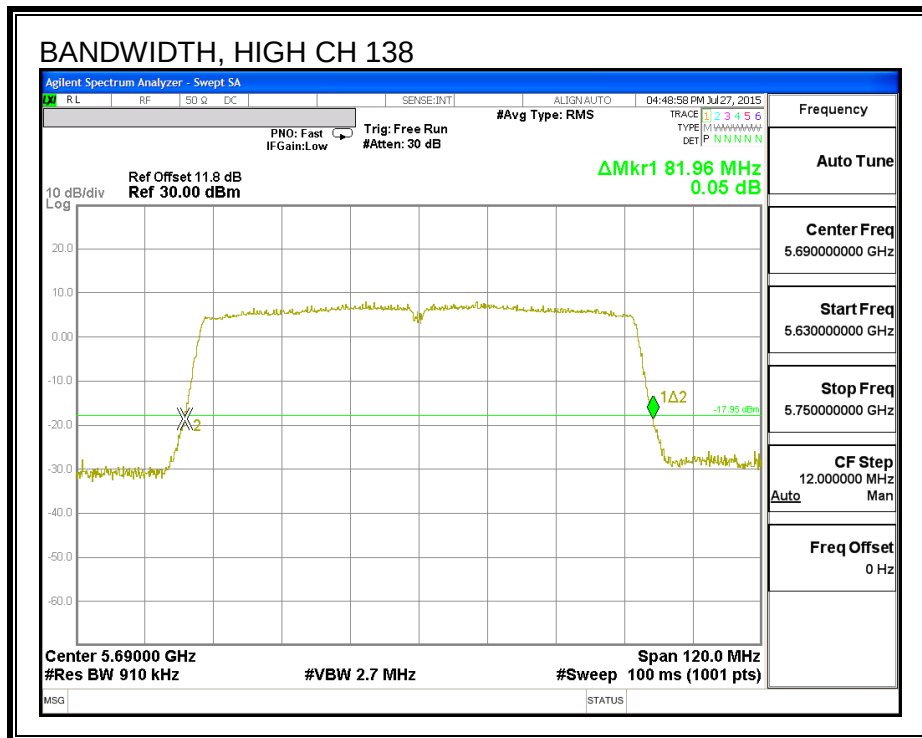
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5530	82.20
Mid	5610	81.96
High	5690	81.96

26 dB BANDWIDTH





8.46.2. 99% BANDWIDTH

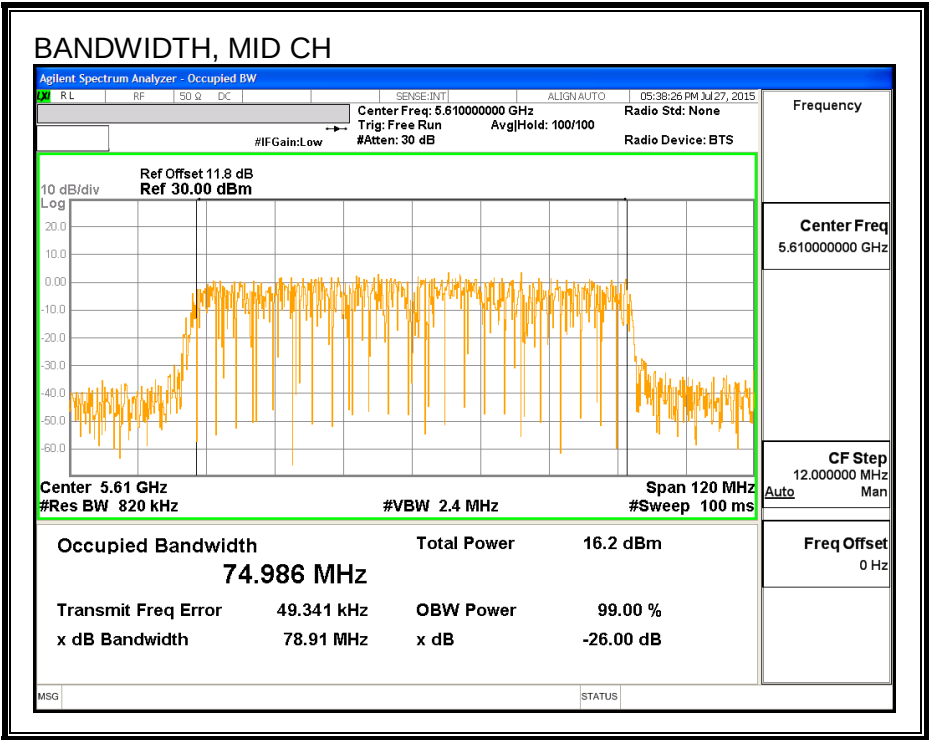
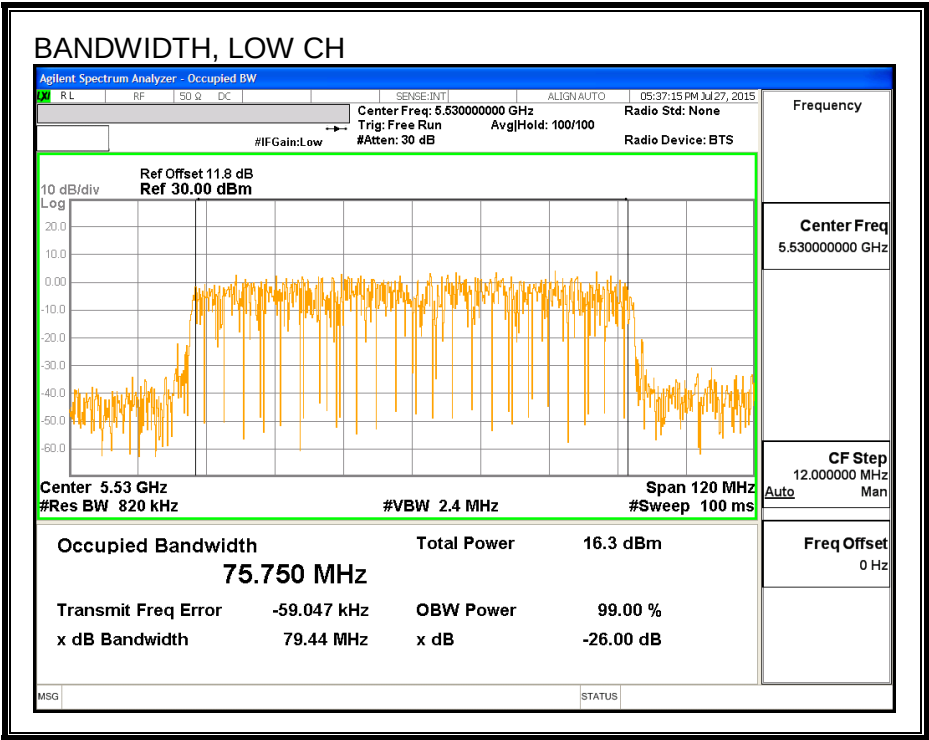
LIMITS

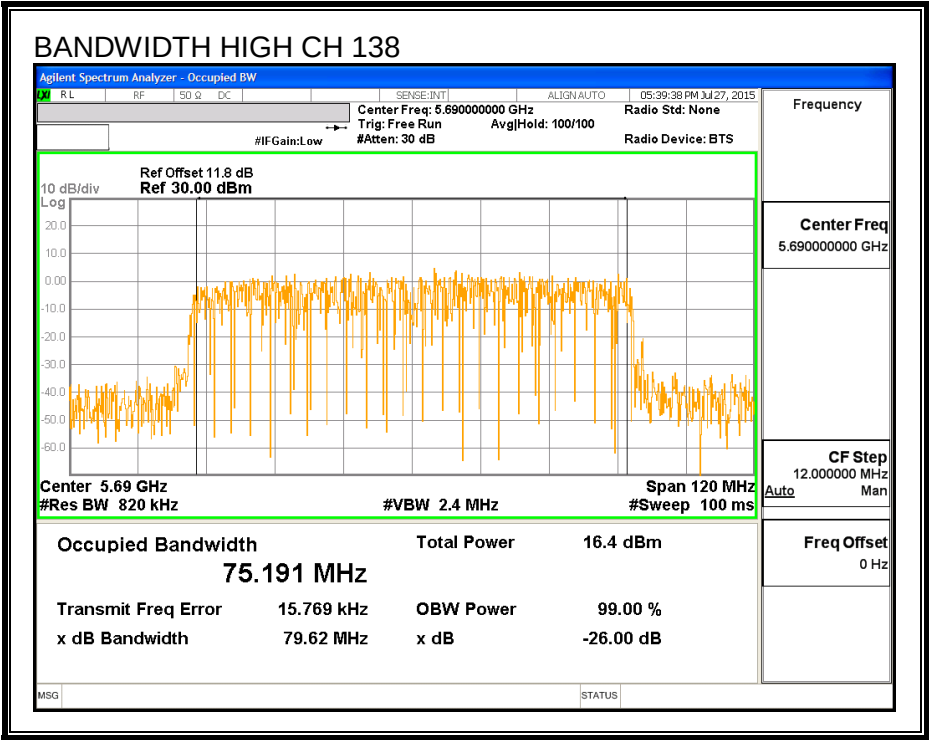
None; for reporting purposes only.

RESULTS

Frequency (MHz)	99% Bandwidth (MHz)
5530	75.750
5610	74.986
5690	75.191

99% BANDWIDTH





8.46.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5530	14.26
Mid	5610	15.83
High	5690	15.95

8.46.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak 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

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5530	82.20	75.750	3.10	24.00	11.00
High	5610	81.96	74.986	3.10	24.00	11.00

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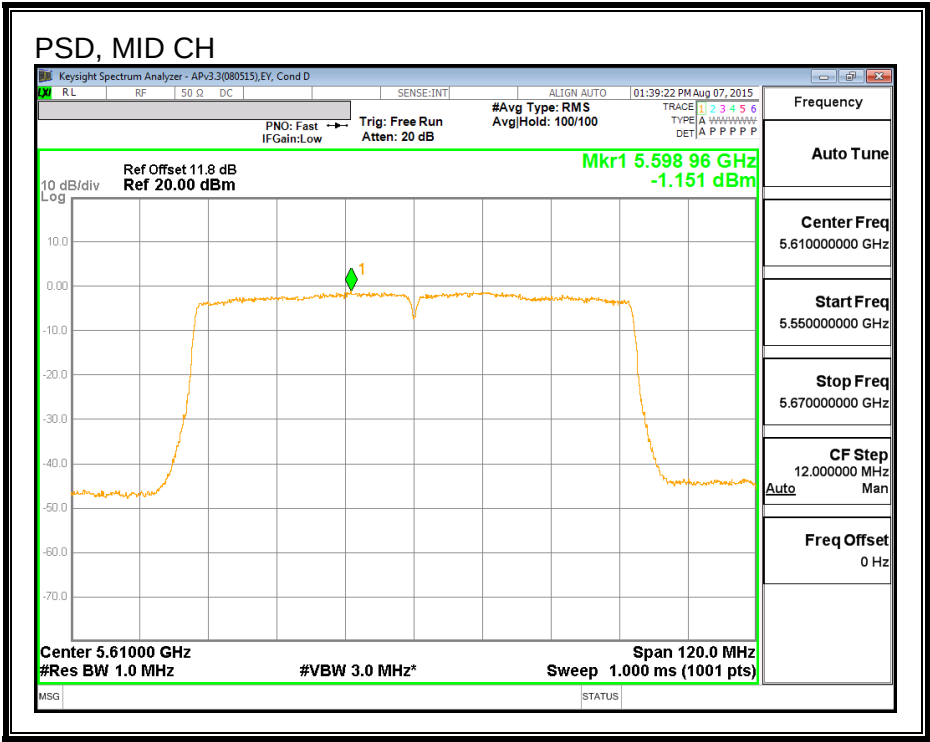
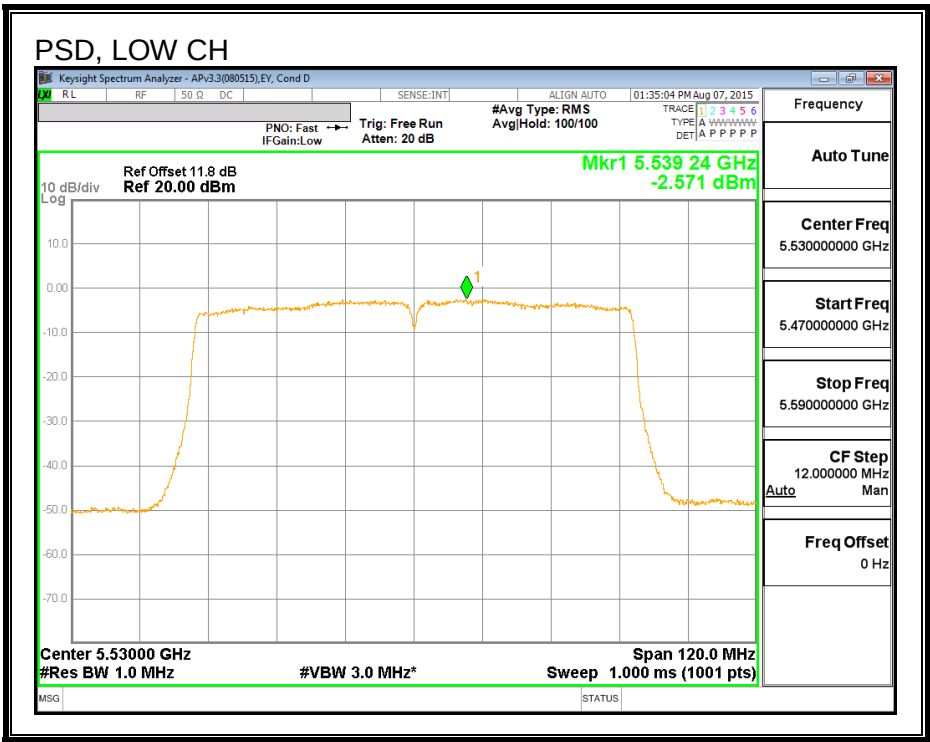
Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	14.10	14.26	24.00	-9.74
High	5610	15.67	15.83	24.00	-8.17

PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5530	-2.57	-2.41	11.00	-13.41
High	5610	-1.15	-0.99	11.00	-11.99

PSD,



8.46.5. STRADDLE CHANNEL 138 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	75.98	3.10	3.10	24.00	11.00

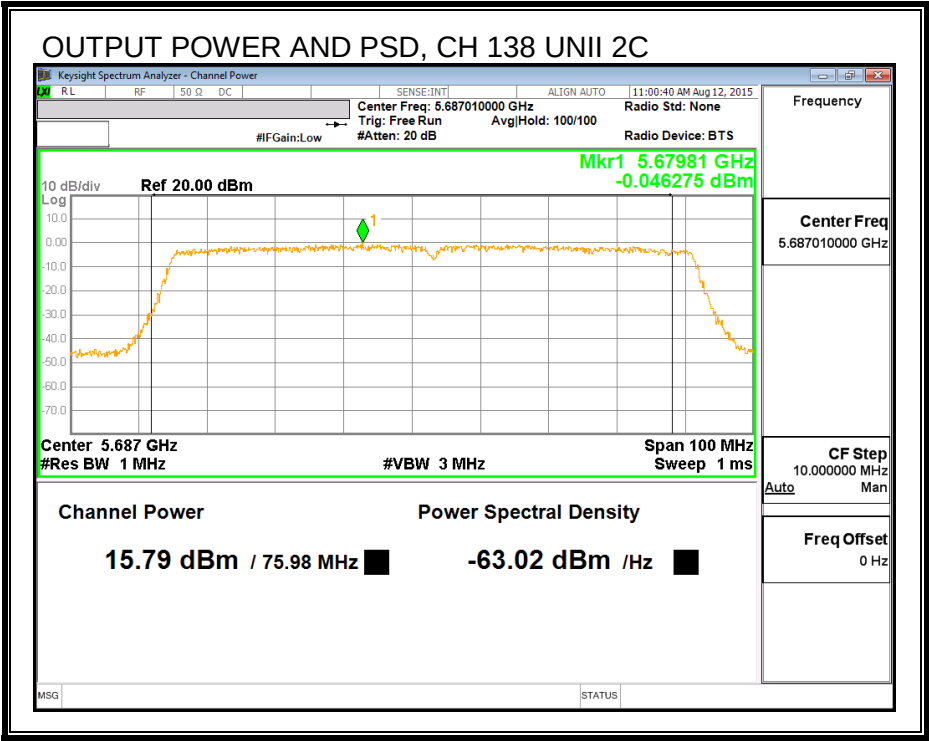
Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	15.79	15.95	24.00	-8.05

PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-0.05	0.11	11.00	-10.89



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	5.98	3.10	30.00	30.00

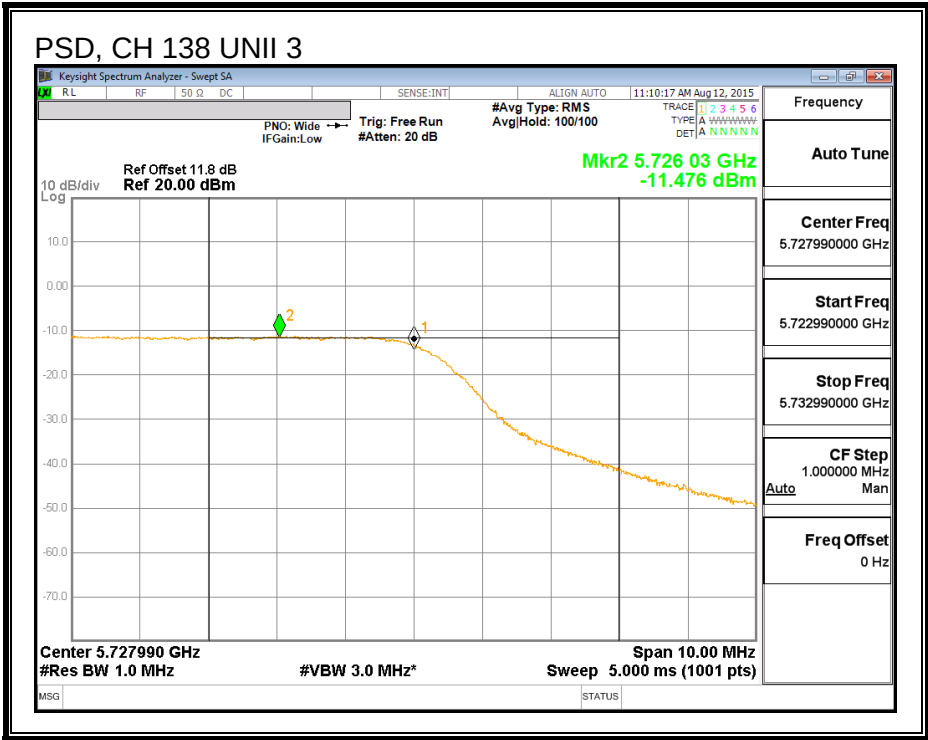
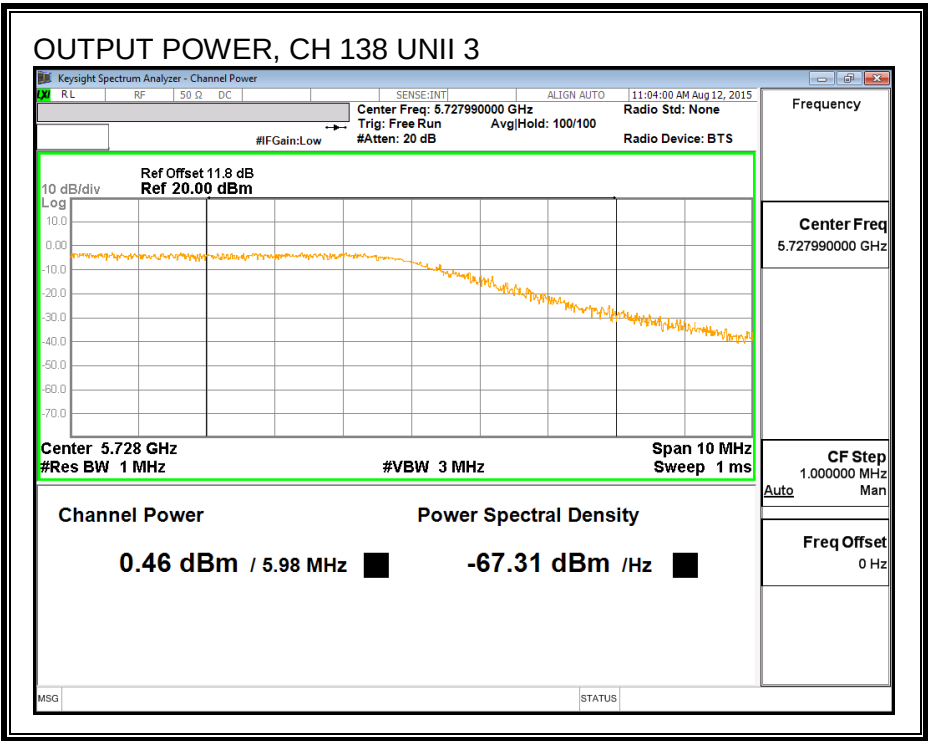
Duty Cycle CF (dB)	0.16	Included in Calculations of Corr'd Power & PSD
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Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	0.46	0.62	30.00	-29.38

PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-11.48	-11.32	30.00	-41.32



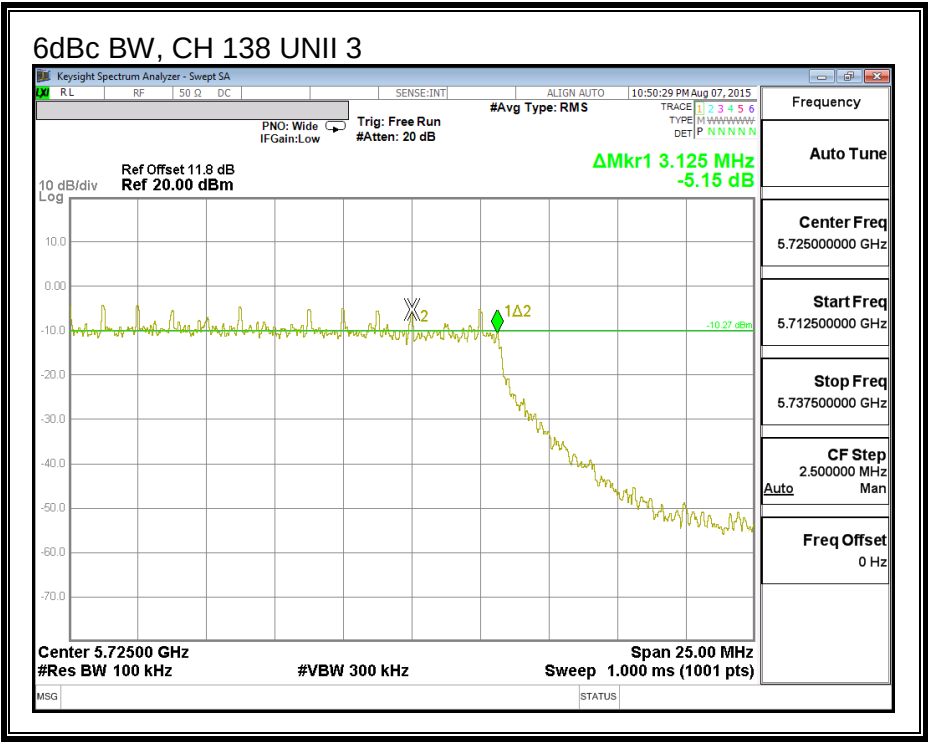
8.46.6. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

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

RESULTS



8.47. 802.11ac VHT80 2Tx CDD MODE IN THE 5.6 GHz BAND (5610MHz for FCC only)

8.47.1.1. 26 dB BANDWIDTH

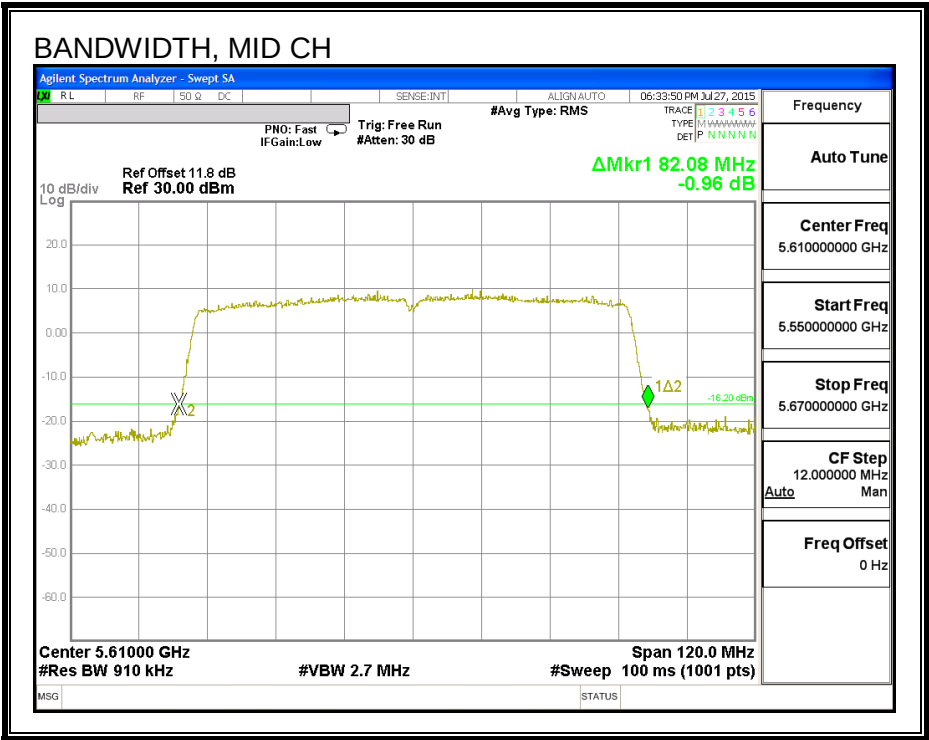
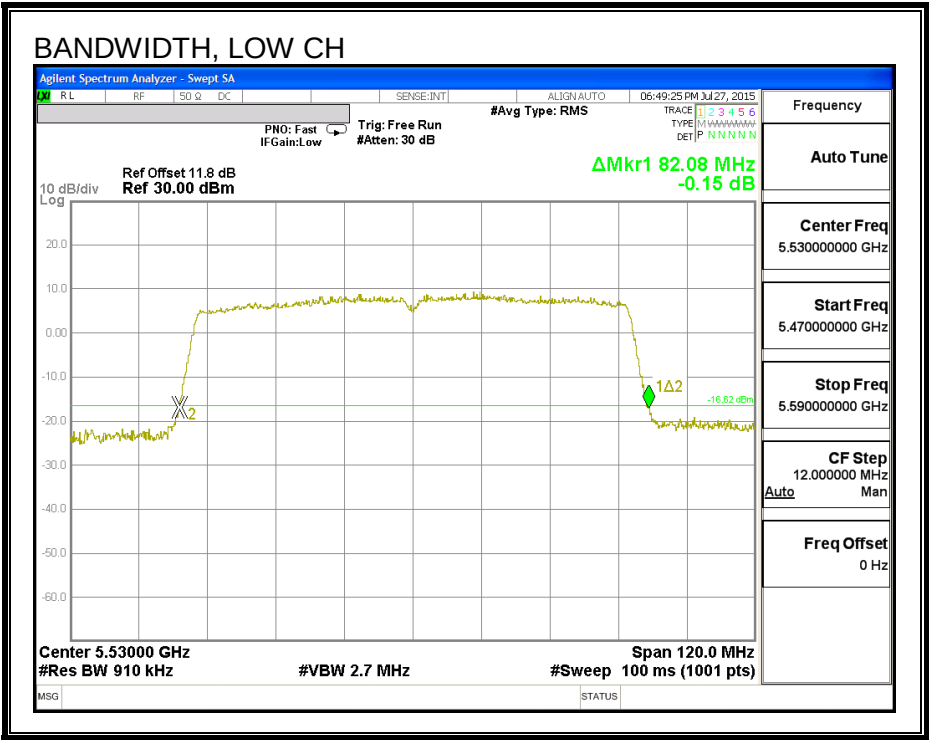
LIMITS

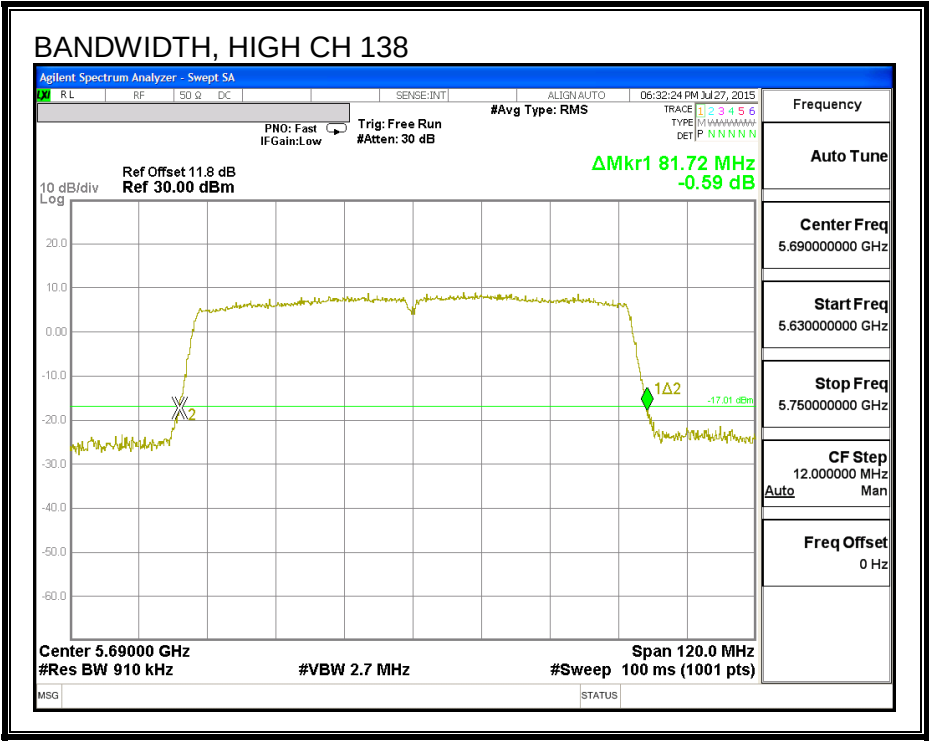
None; for reporting purposes only.

RESULTS

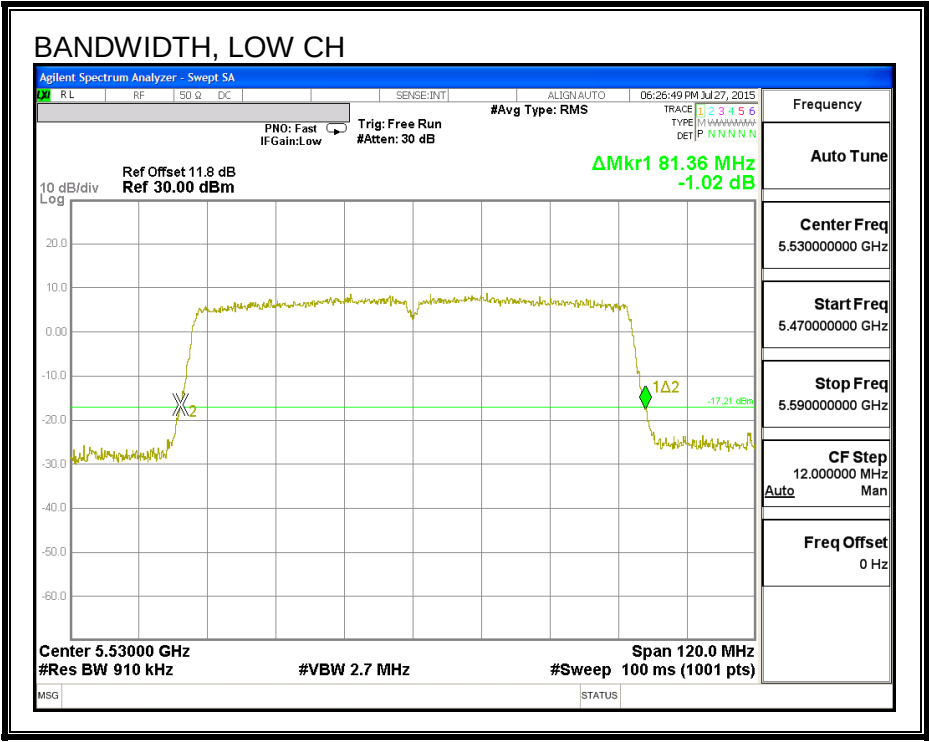
Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5530	82.08	81.32
Mid	5610	82.08	81.60
High	5690	81.72	81.36

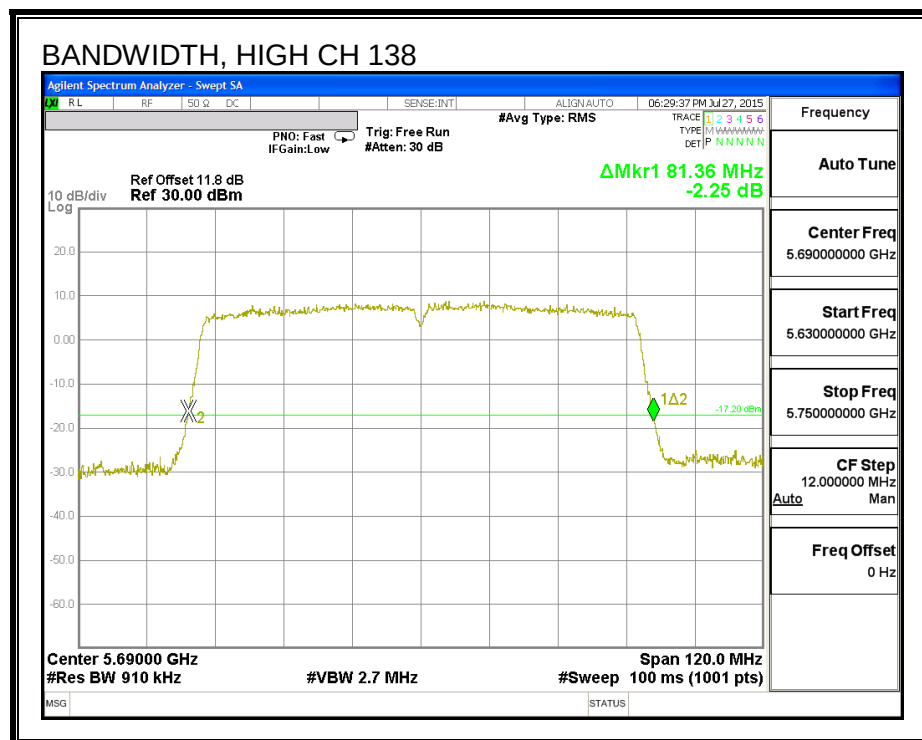
26 dB BANDWIDTH, CHAIN 0





26 dB BANDWIDTH, CHAIN 1





8.47.2. 99% BANDWIDTH

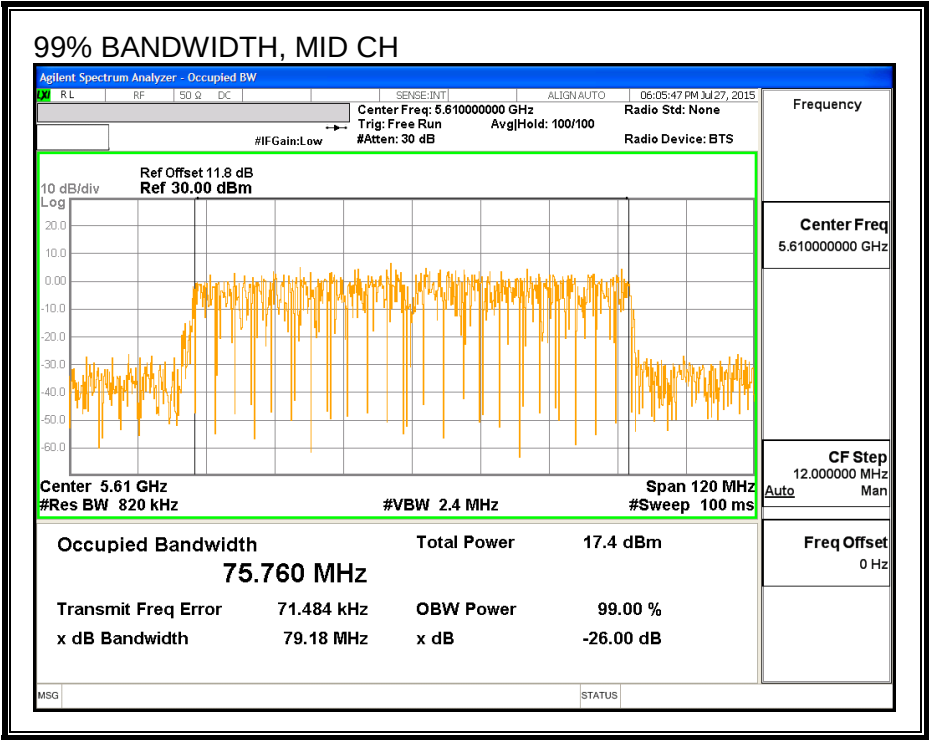
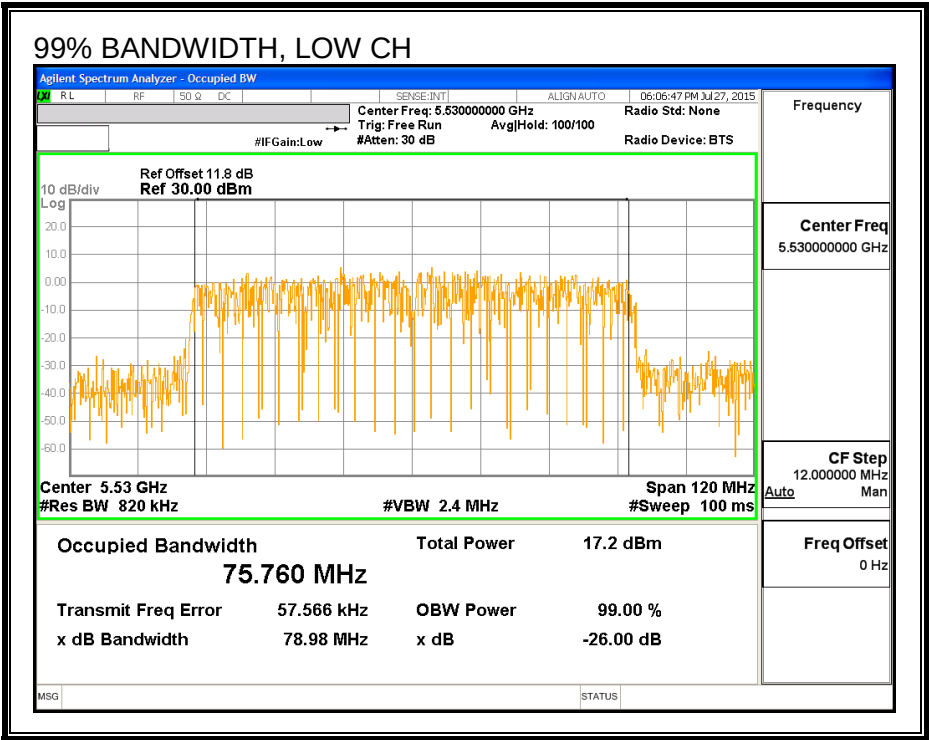
LIMITS

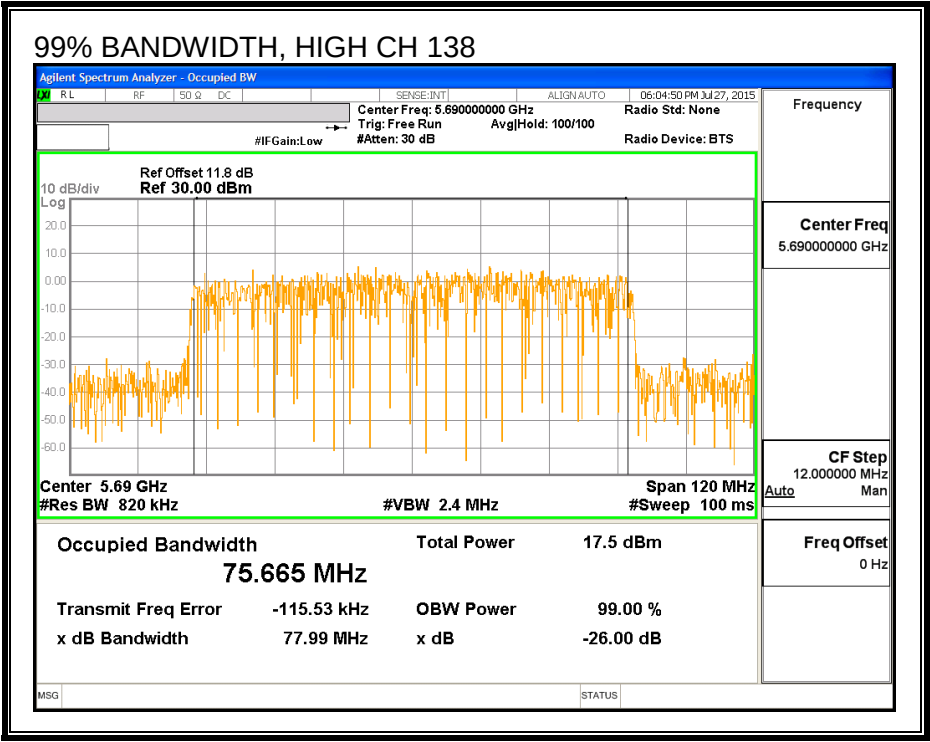
None; for reporting purposes only.

RESULTS

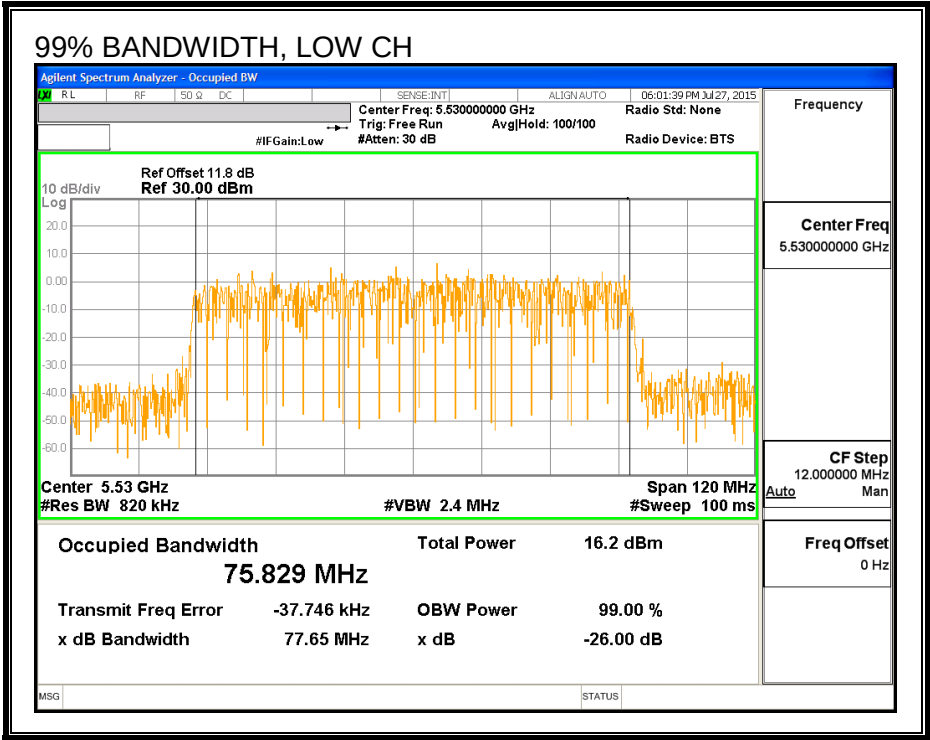
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5530	75.760	75.829
Mid	5610	75.760	75.588
High	5690	75.665	75.761

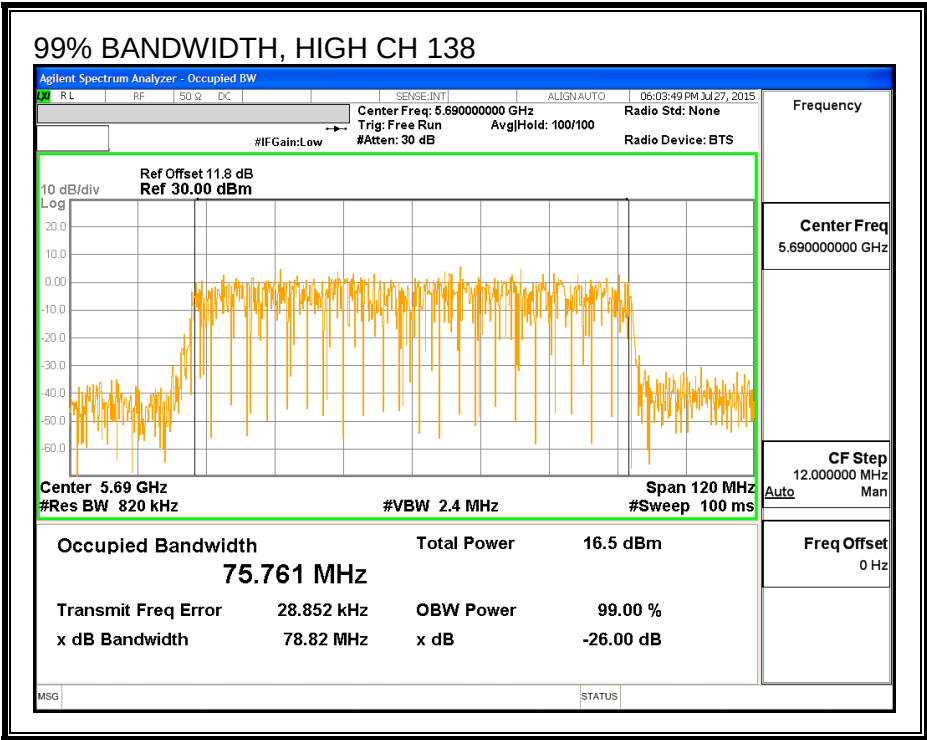
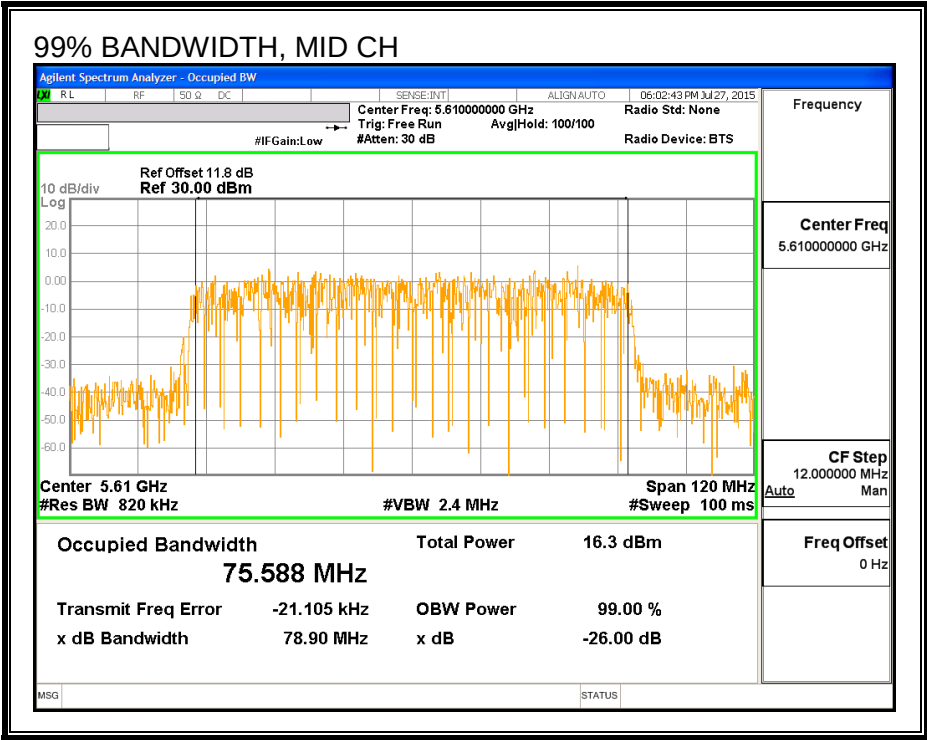
99% BANDWIDTH, CHAIN 0





99% BANDWIDTH, CHAIN 1





8.47.3. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5530	13.22	13.29	16.27
Mid	5610	15.47	15.93	18.72
High	5690	15.41	15.95	18.70

8.47.4. OUTPUT POWER AND PSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.47–5.725 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26–dB emission bandwidth in MHz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1–MHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the peak 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 uncorrelated and the antenna gain is unequal among the chains. The directional gain is:

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
2.70	3.10	2.90

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)	Correlated Chains Directional Gain (dBi)
2.70	3.10	5.91

RESULTS

Bandwidth, Antenna Gain and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
Low	5530	81.32	75.760	2.90	5.91	24.00	11.00
High	5610	81.60	75.588	2.90	5.91	24.00	11.00

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd Power & PSD
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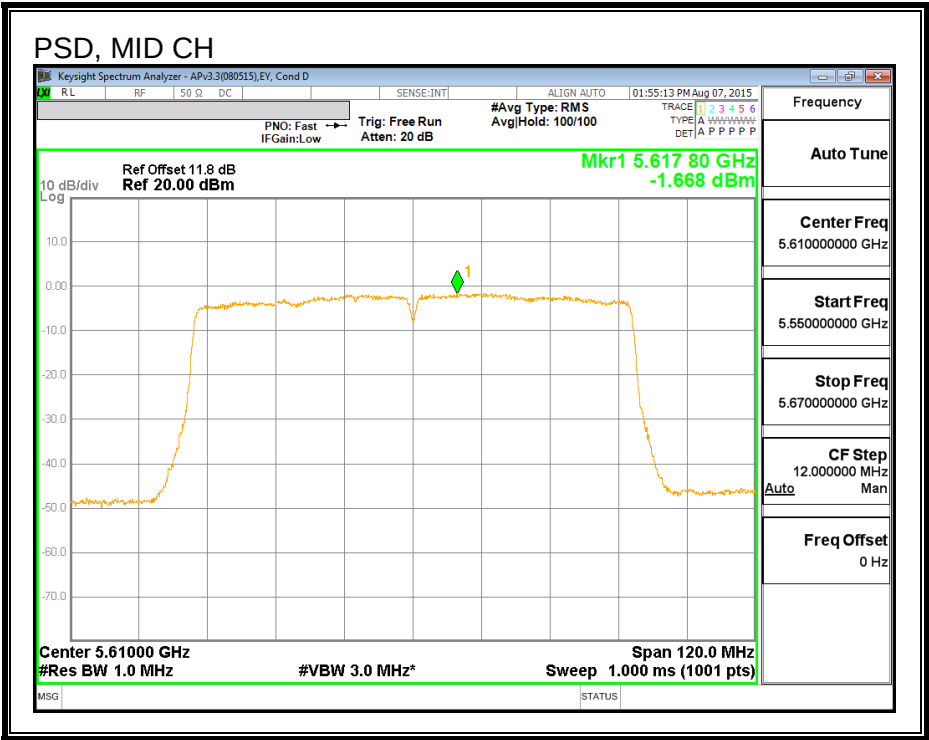
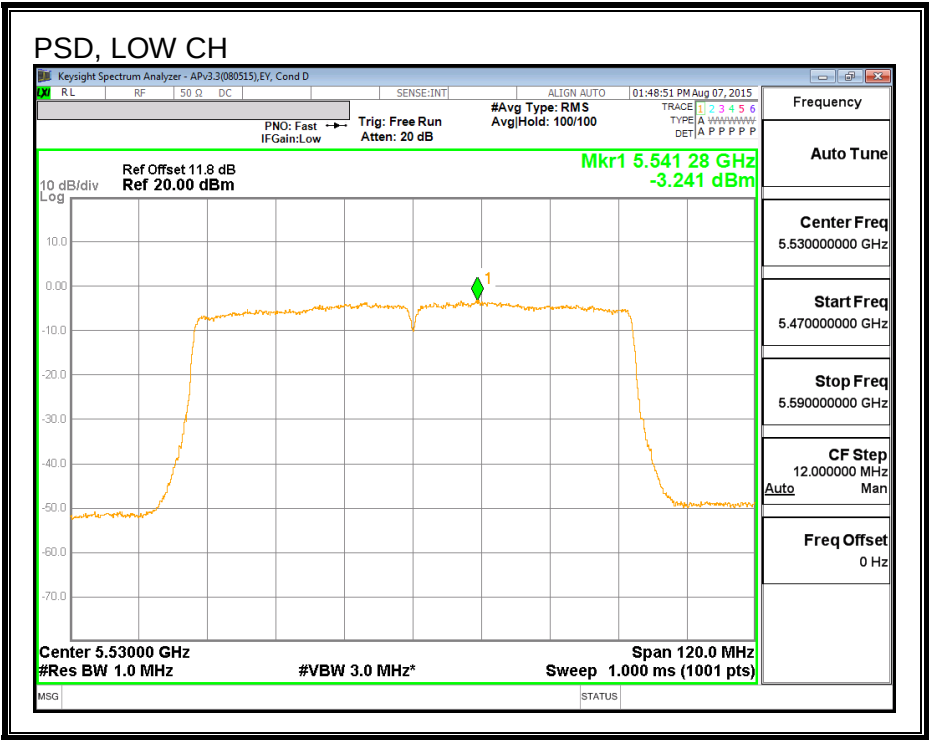
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5530	13.02	13.09	16.27	24.00	-7.73
High	5610	15.27	15.73	18.72	24.00	-5.28

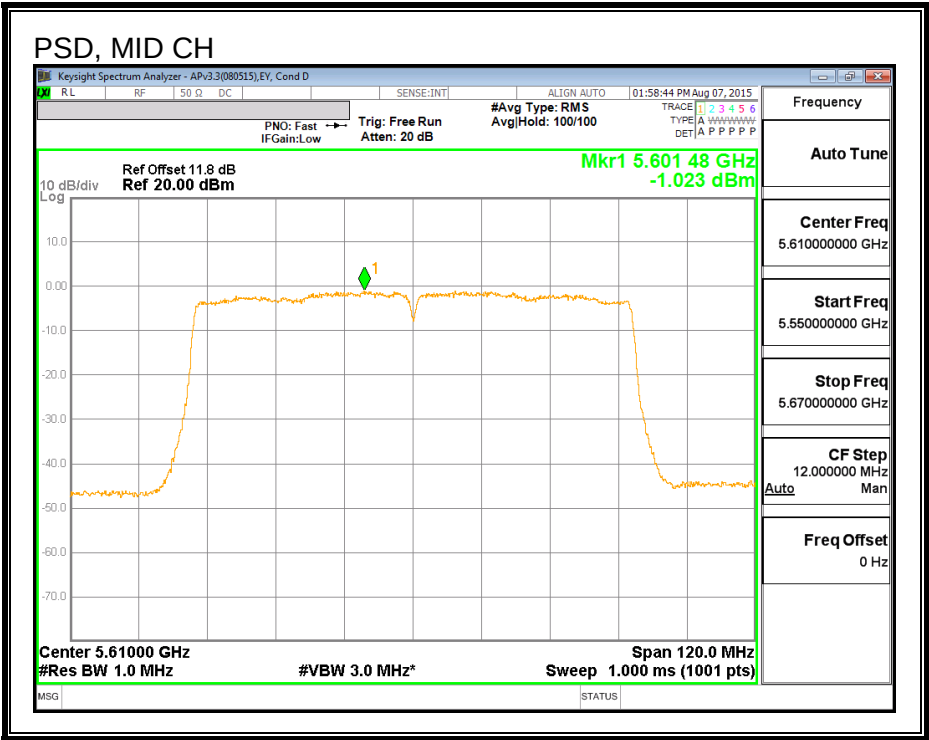
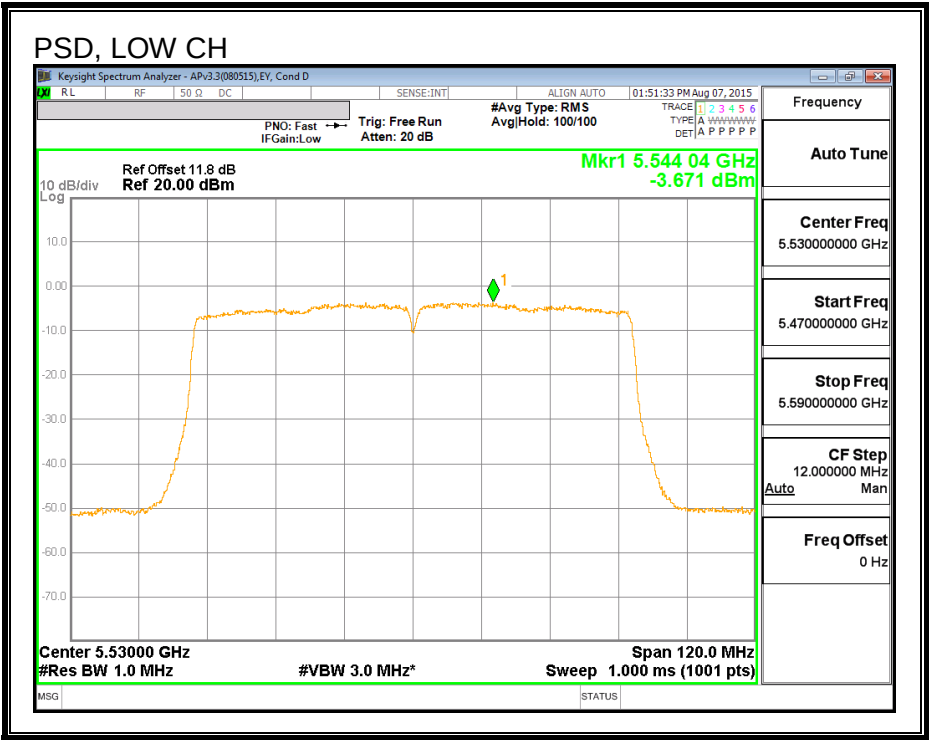
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5530	-3.24	-3.67	-0.24	11.00	-11.24
High	5610	-1.67	-1.02	1.88	11.00	-9.12

PSD, CHAIN 0



PSD, CHAIN 1



8.47.5. STRADDLE CHANNEL 138 RESULTS

UNII-2C BAND

Bandwidth, Antenna Gain, and Limits

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	75.86	2.90	5.91	24.00	11.00

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd Power & PSD
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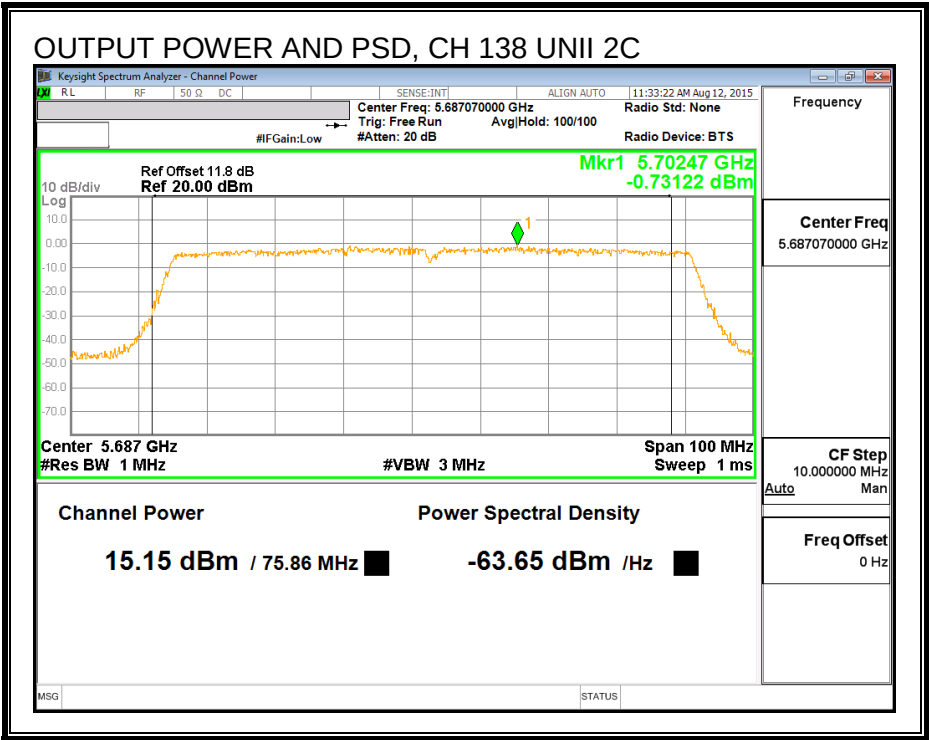
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	15.15	15.83	18.71	24.00	-5.29

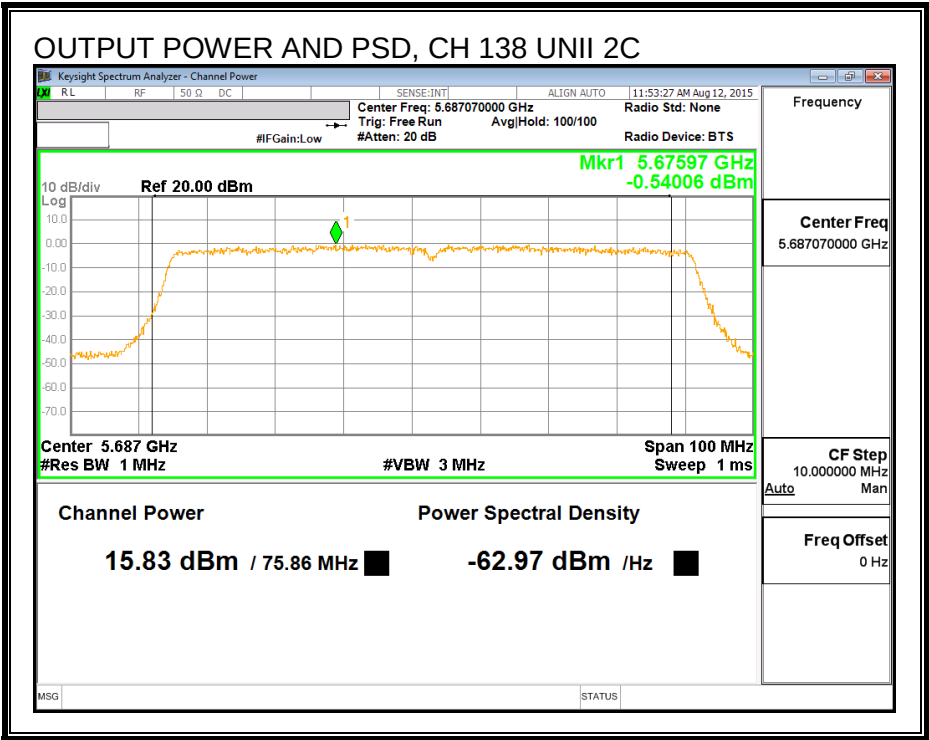
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-0.73	-0.54	2.58	11.00	-8.42

CHAIN 0



CHAIN 1



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 26 dB BW (MHz)	Directional Gain (dBi)	Directional Gain (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	5.86	2.90	5.91	30.00	30.00

Duty Cycle CF (dB)	0.20	Included in Calculations of Corr'd Power & PSD
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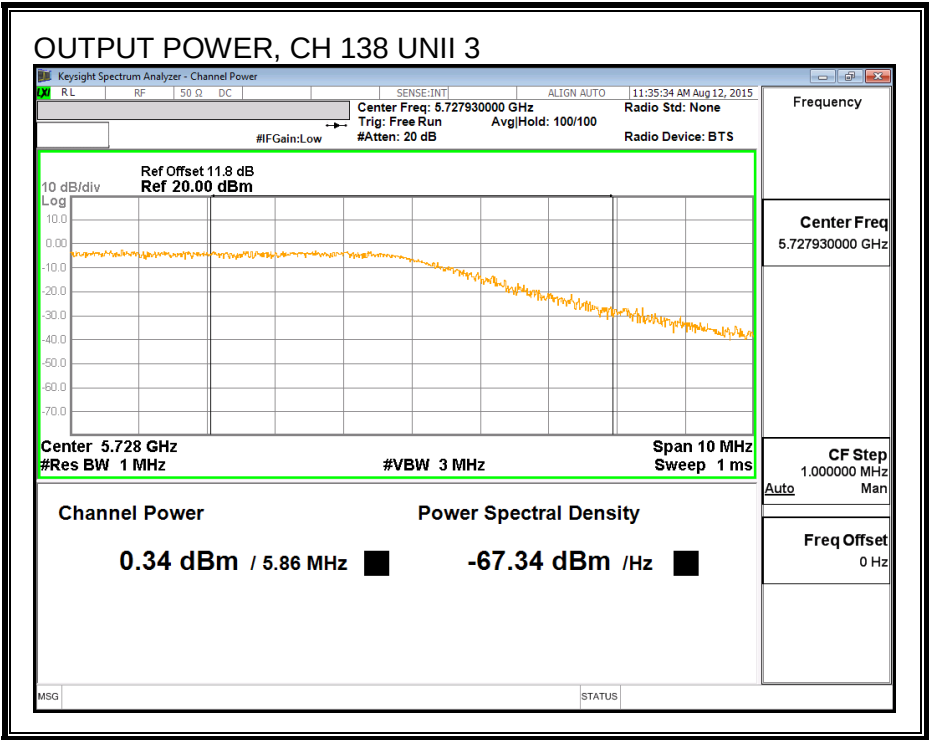
Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	0.34	0.71	3.74	30.00	-26.26

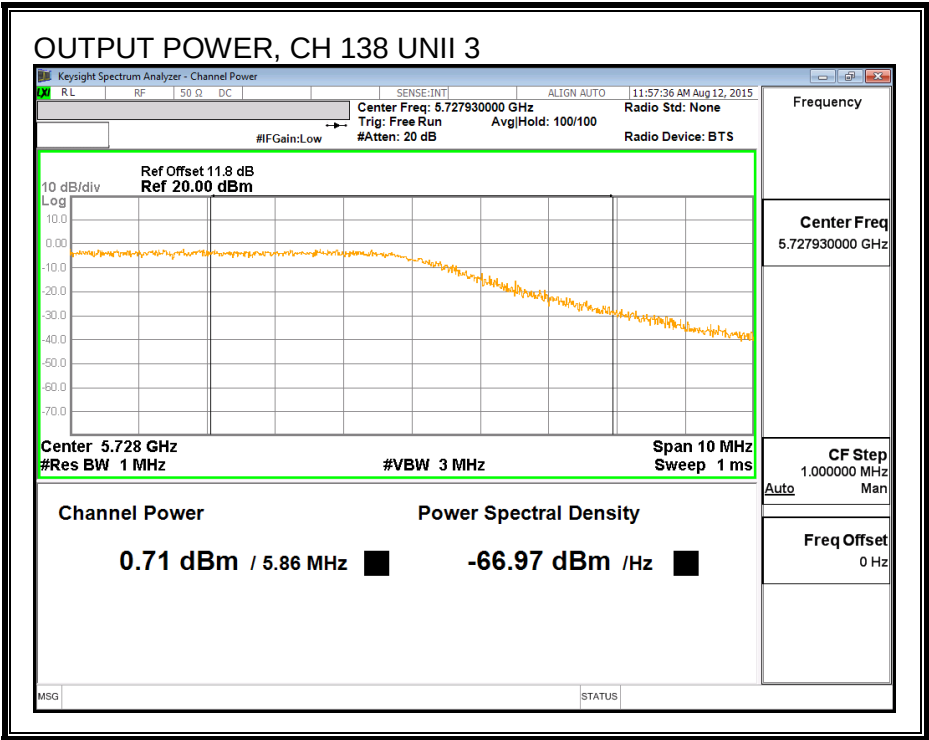
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
138	5690	-11.30	-11.52	-8.20	30.00	-38.20

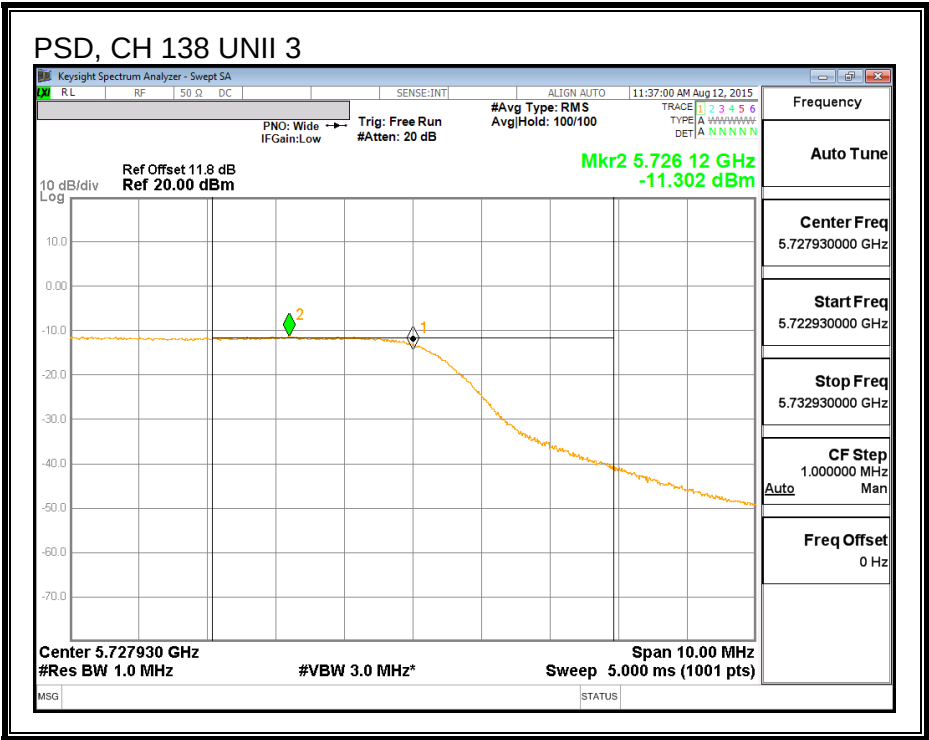
CHAIN 0



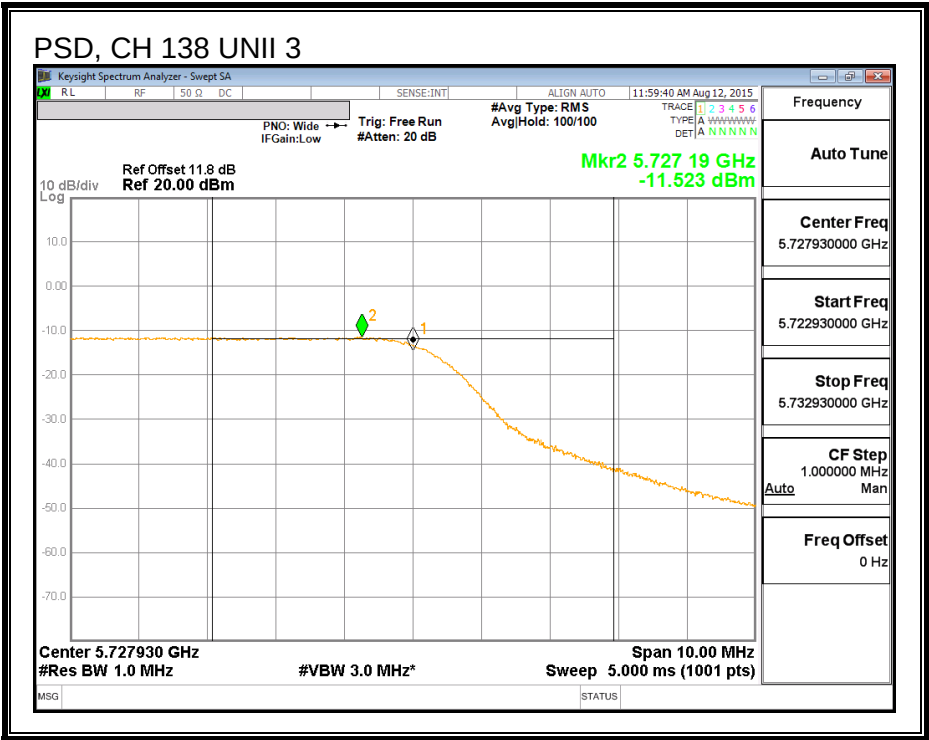
CHAIN 1



CHAIN 0



CHAIN 1



8.47.6. 6 dB BANDWIDTH

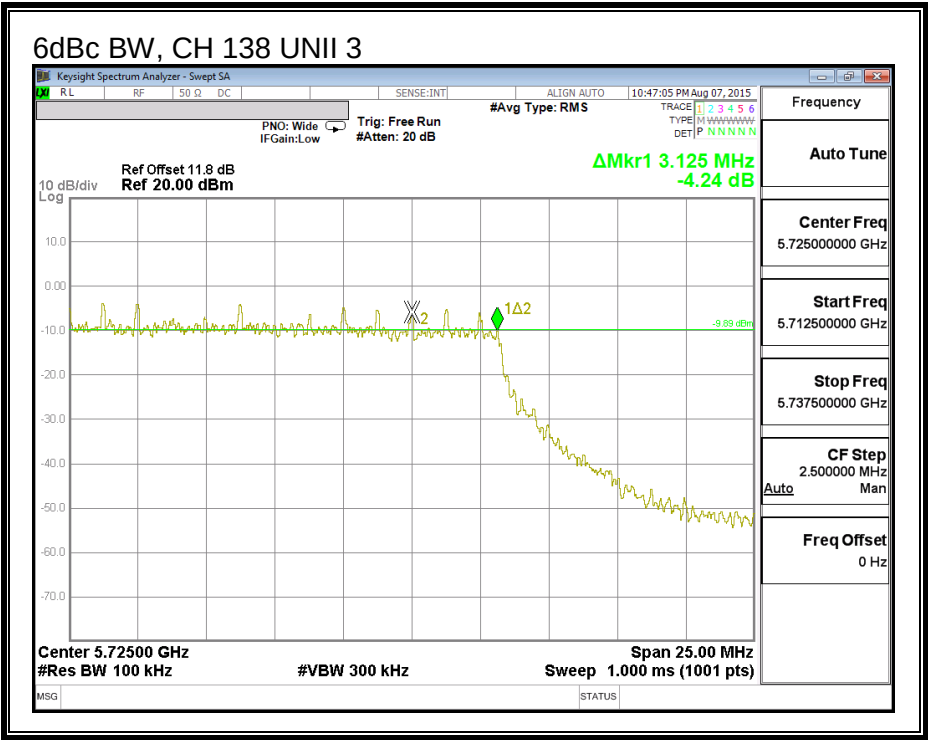
LIMITS

FCC §15.407 (e)

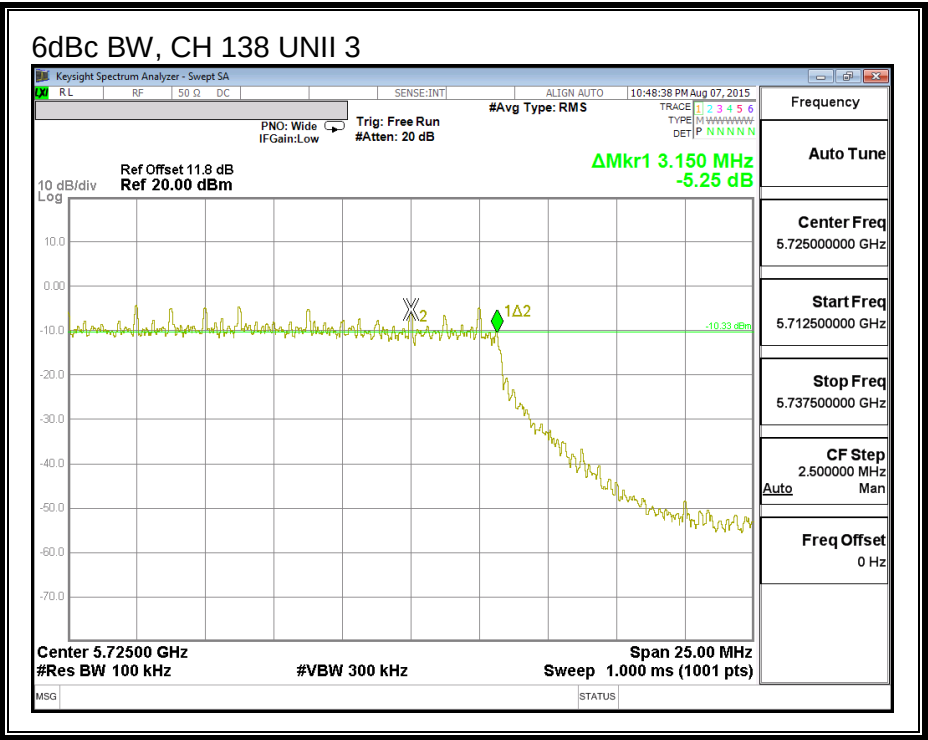
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

CHAIN 0



CHAIN 1



**8.48. 802.11ac VHT80 2Tx STBC/SDM MODE IN THE 5.6 GHz BAND
(5610MHz for FCC only)**

Note: Covered by 802.11n HT80 2Tx CDD MODE

8.49. 802.11a SISO MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT20 SISO CDD MODE.

8.50. 802.11n HT20 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.50.1. 6 dB BANDWIDTH

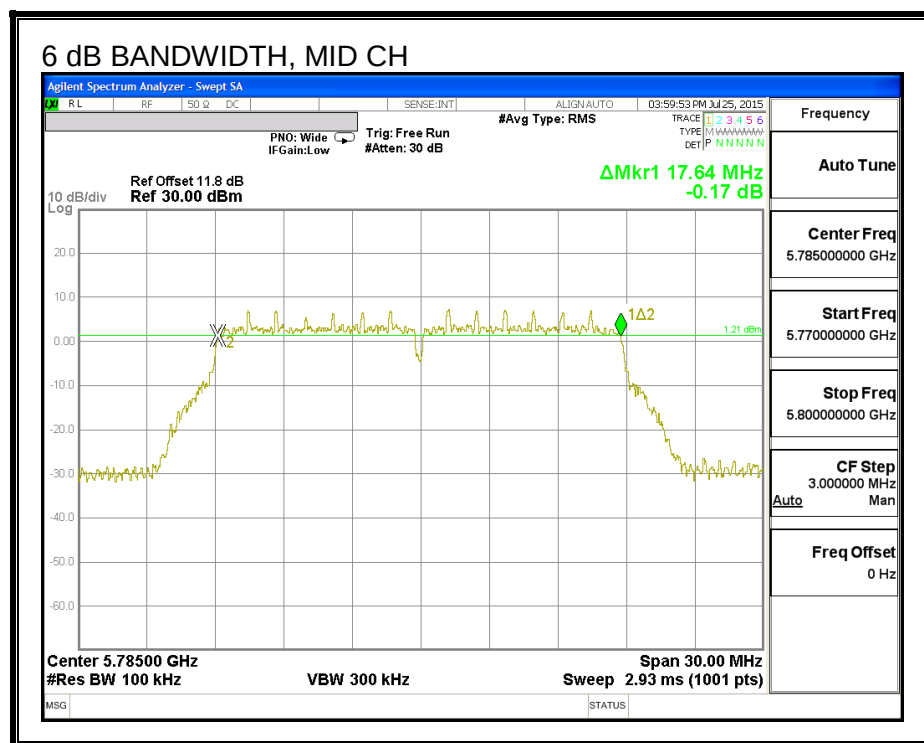
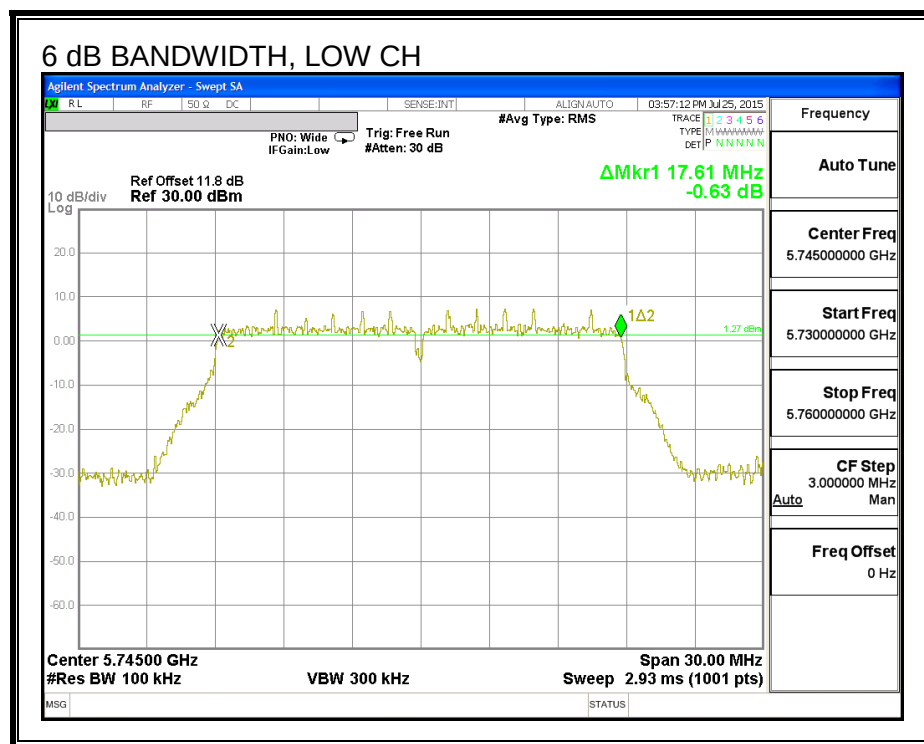
LIMITS

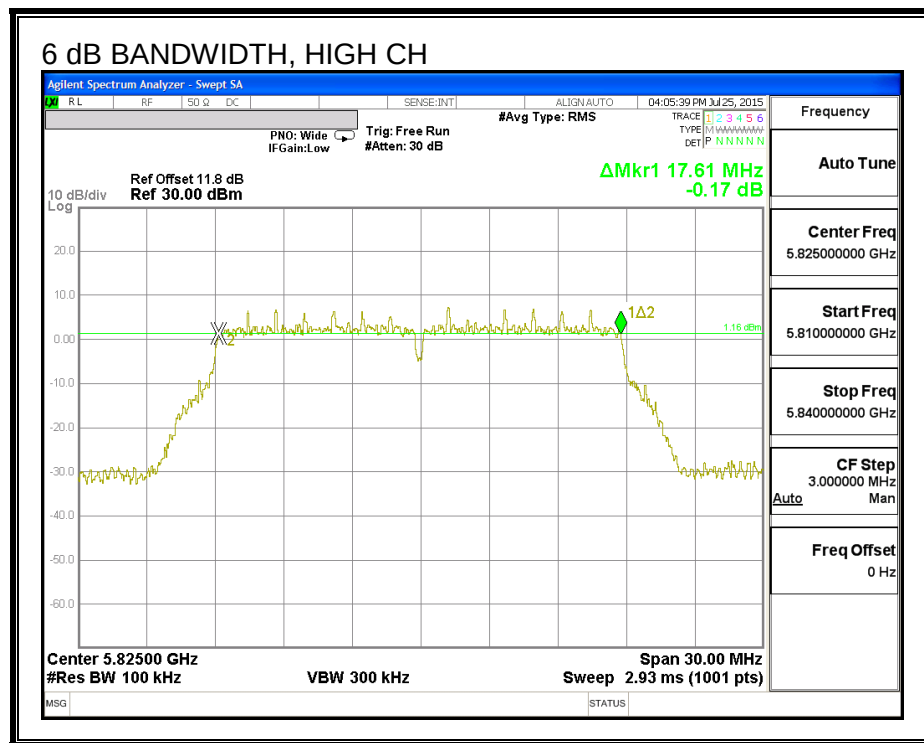
FCC §15.407 (e)

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.61	0.5
Mid	5785	17.64	0.5
High	5825	17.61	0.5





8.50.2. 26 dB BANDWIDTH

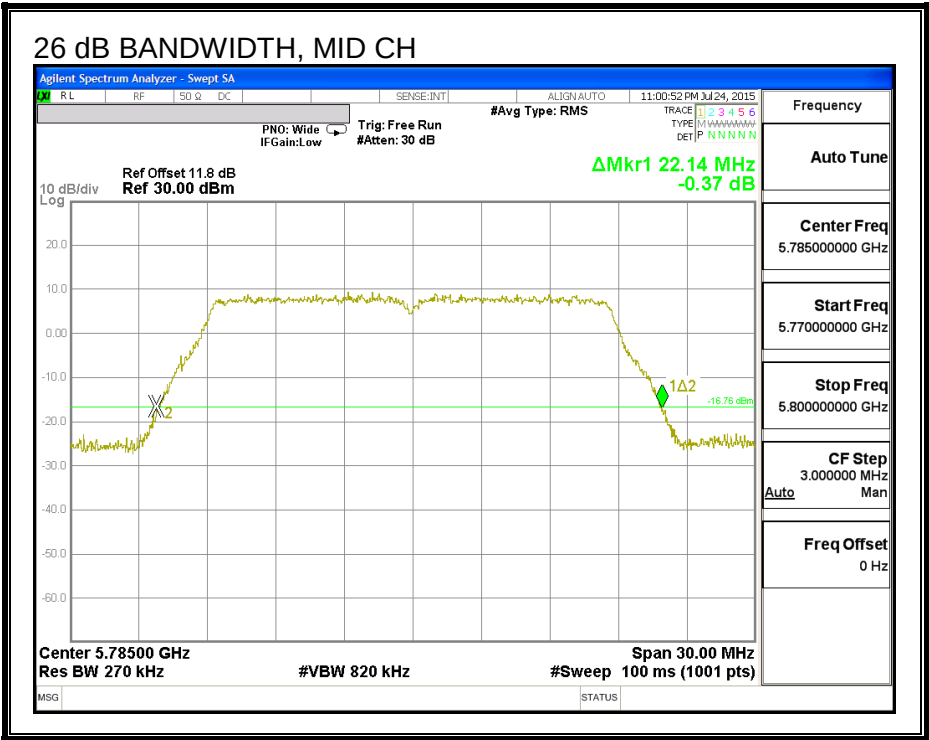
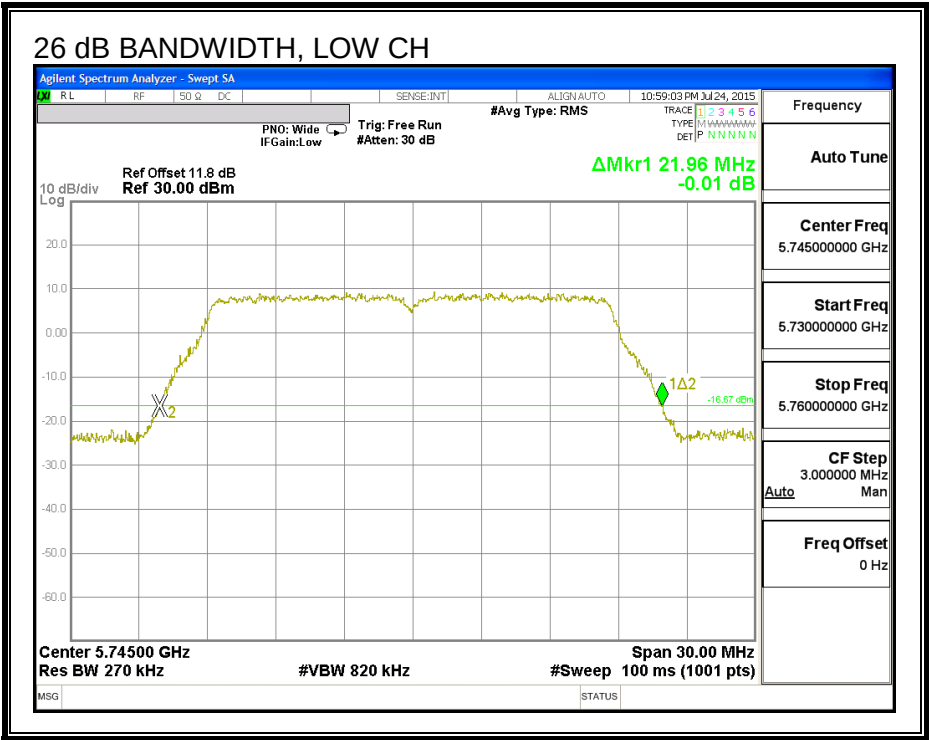
LIMITS

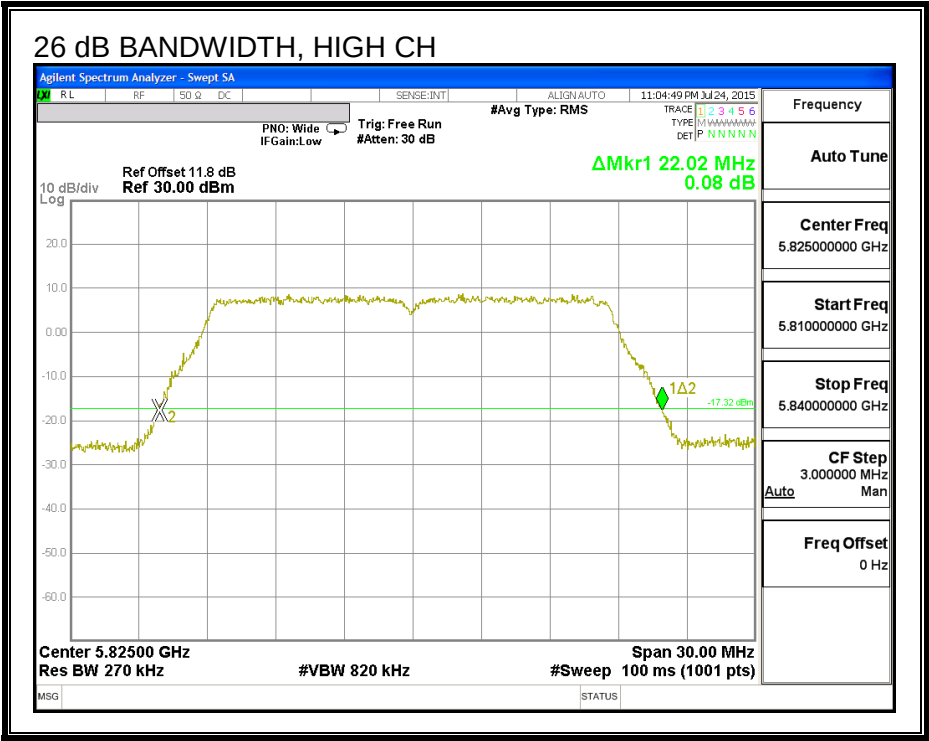
None, for reporting purposes only

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	21.96
Mid	5785	22.14
High	5825	22.02

26 dB BANDWIDTH





8.50.3. 99% BANDWIDTH

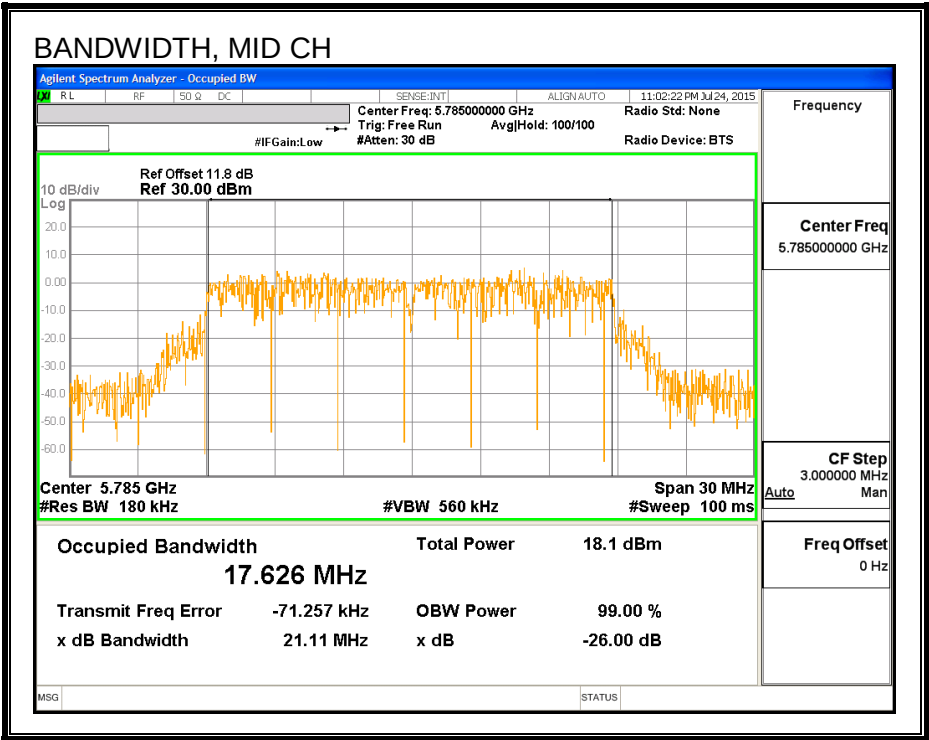
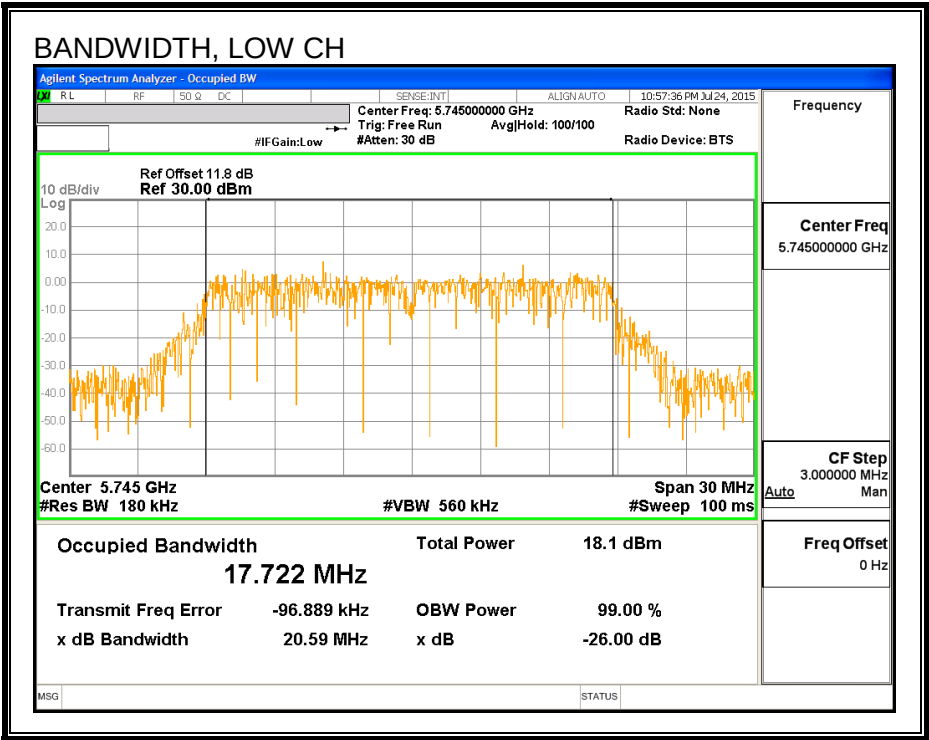
LIMITS

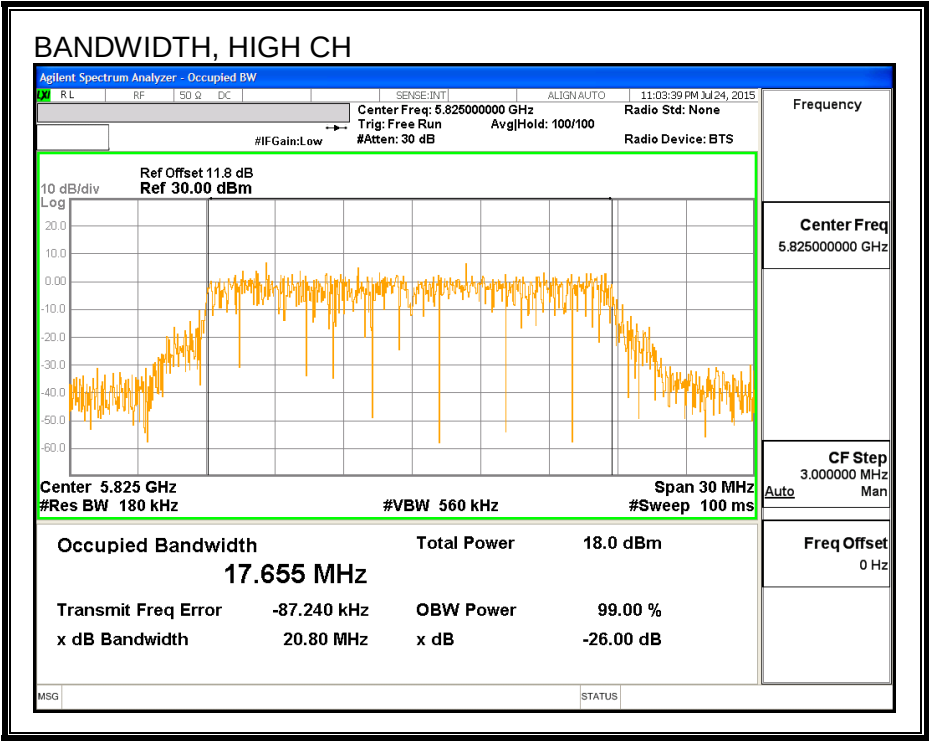
None; for reporting purposes only.

RESULTS

Frequency (MHz)	99% Bandwidth (MHz)
5745	17.722
5785	17.626
5825	17.655

99% BANDWIDTH





8.50.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5745	15.47
Mid	5785	15.94
High	5825	15.98

8.50.5. 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.

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 for Power (dBi)	Power Limit (dBm)
Low	5745	2.40	30.00
Mid	5785	2.40	30.00
High	5825	2.40	30.00

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

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.47	15.47	30.00	-14.53
Mid	5785	15.94	15.94	30.00	-14.06
High	5825	15.98	15.98	30.00	-14.02

8.50.6. 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

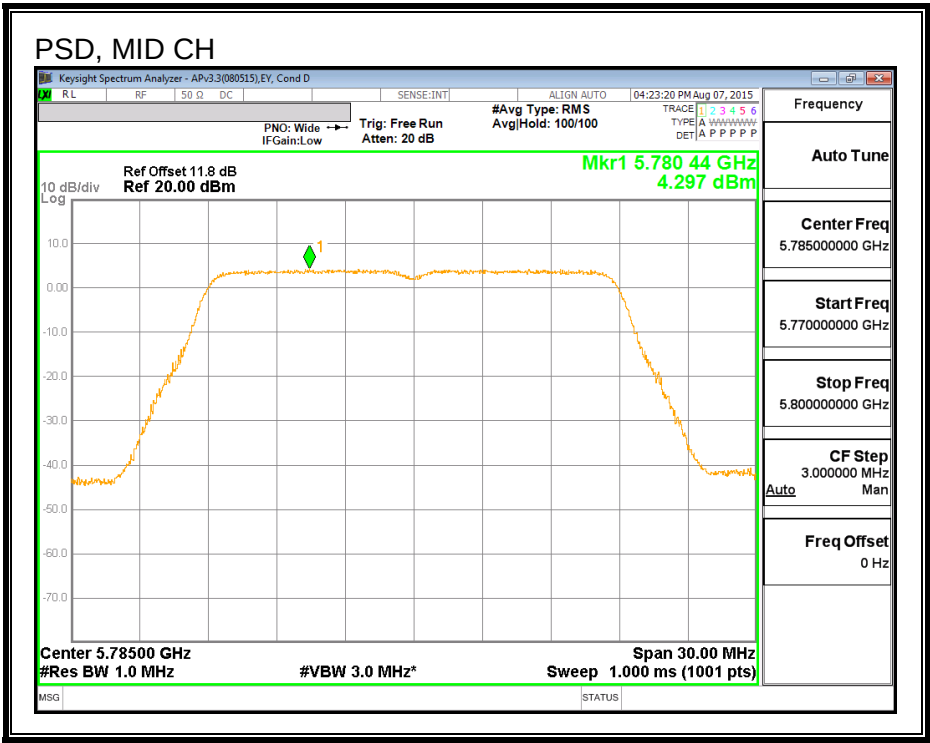
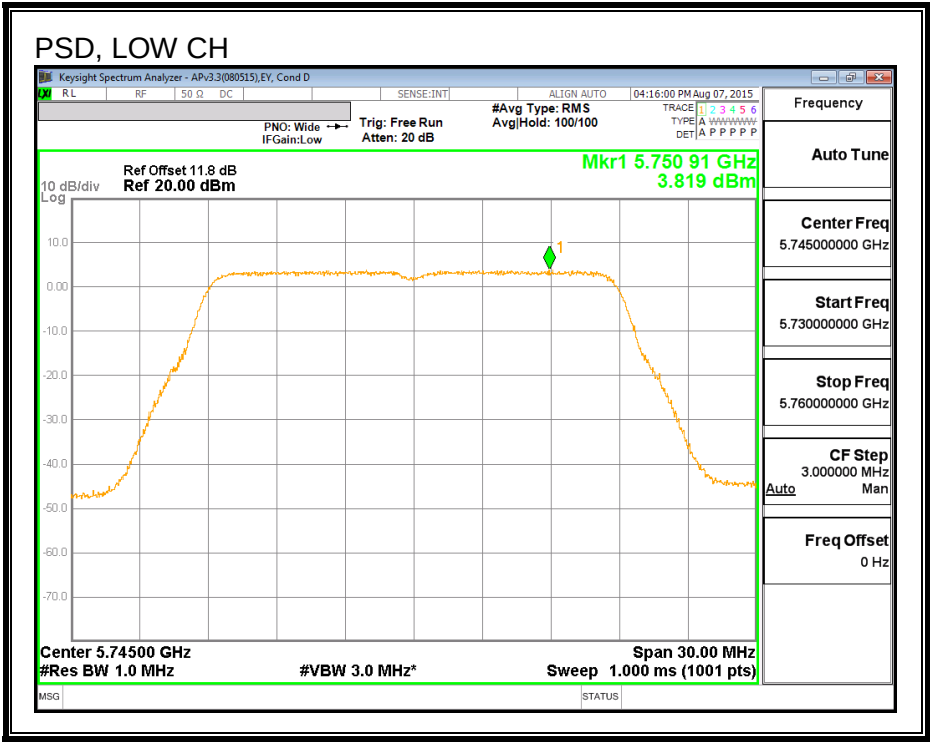
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	2.40	30.00
Mid	5785	2.40	30.00
High	5825	2.40	30.00

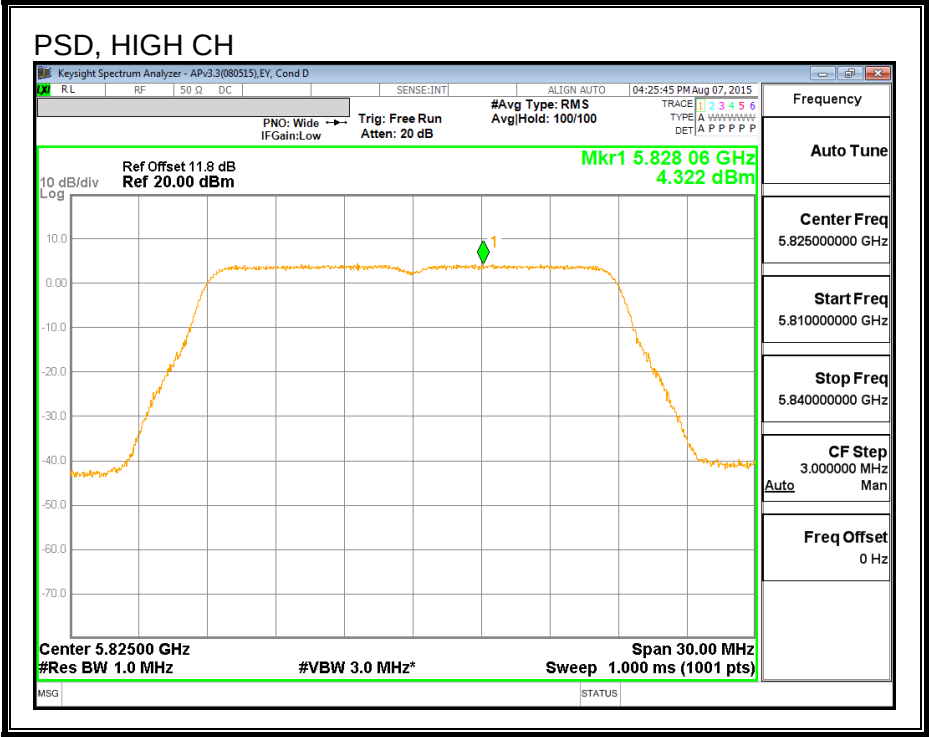
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.82	3.82	30.00	-26.18
Mid	5785	4.30	4.30	30.00	-25.70
High	5825	4.32	4.32	30.00	-25.68

PSD,





8.51. 802.11n HT20 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.51.1. 6 dB BANDWIDTH

LIMITS

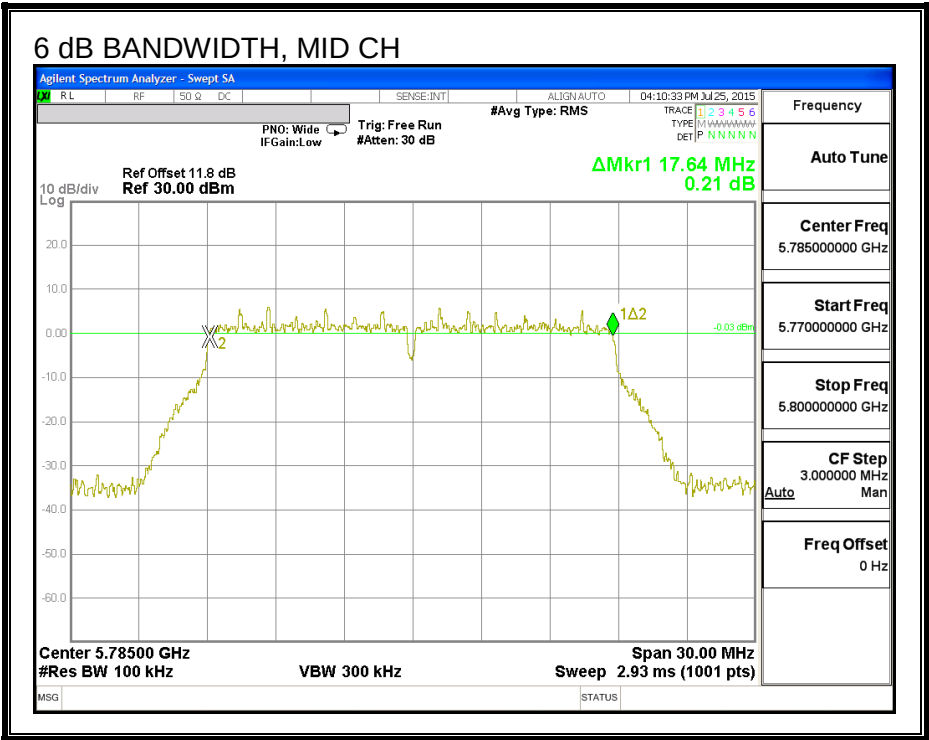
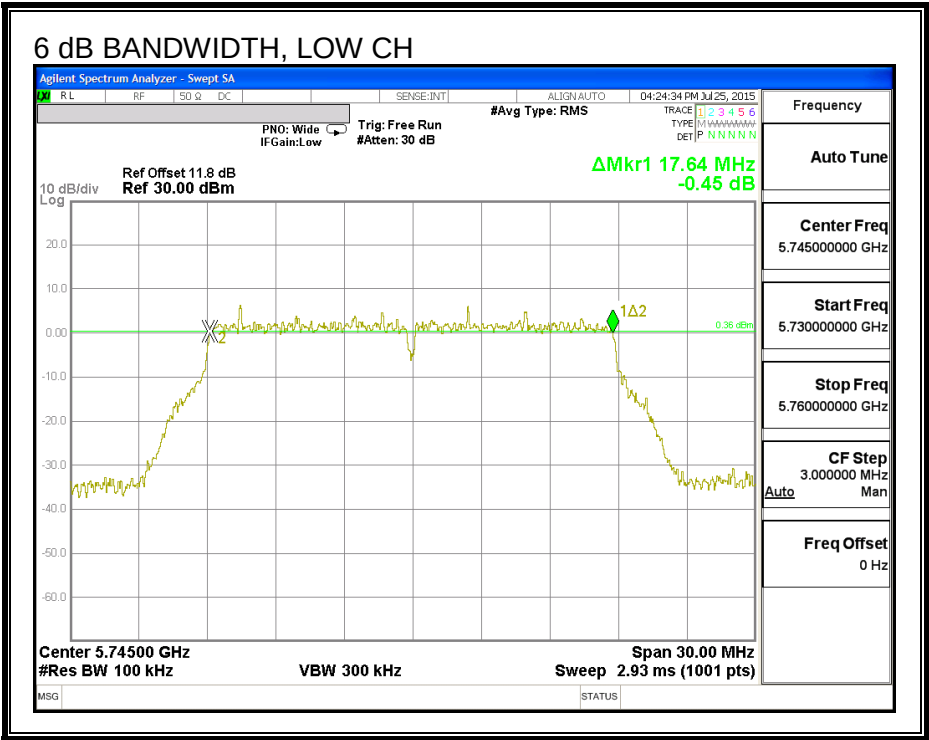
FCC §15.407 (e)

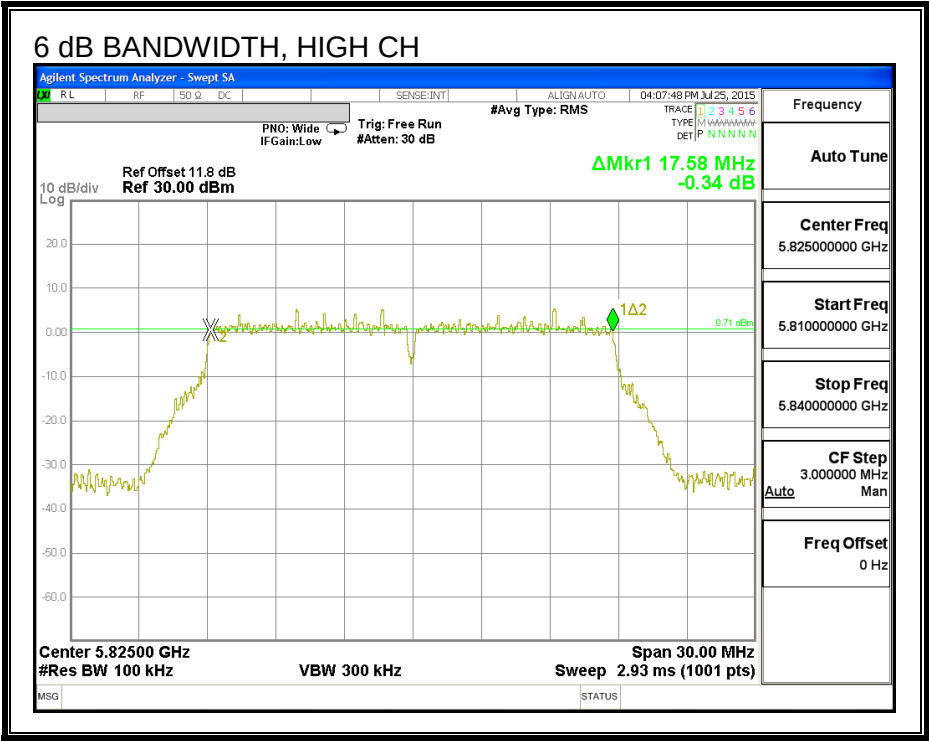
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.64	0.5
Mid	5785	17.64	0.5
High	5825	17.58	0.5

6 dB BANDWIDTH





8.51.2. 26 dB BANDWIDTH

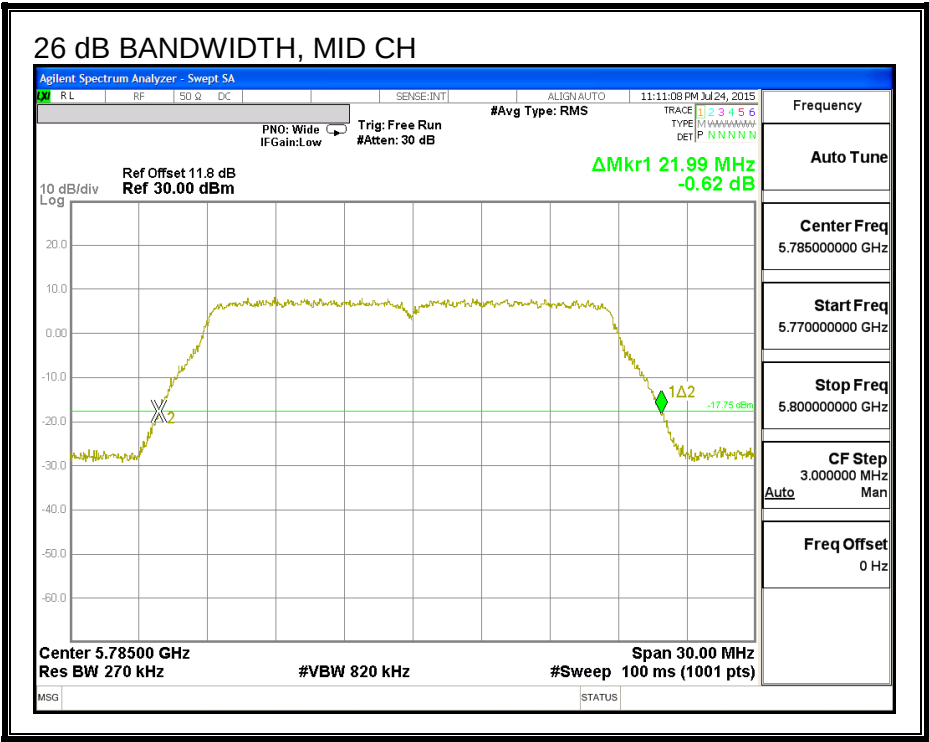
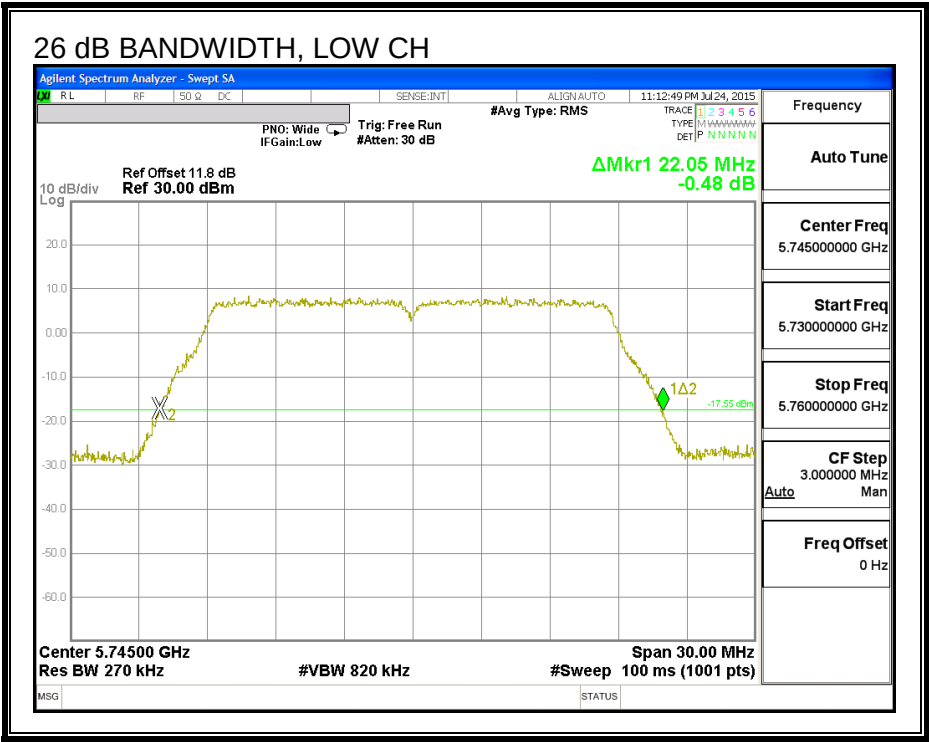
LIMITS

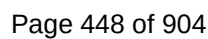
None, for reporting purposes only

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	22.05
Mid	5785	21.99
High	5825	21.99

26 dB BANDWIDTH





8.51.3. 99% BANDWIDTH

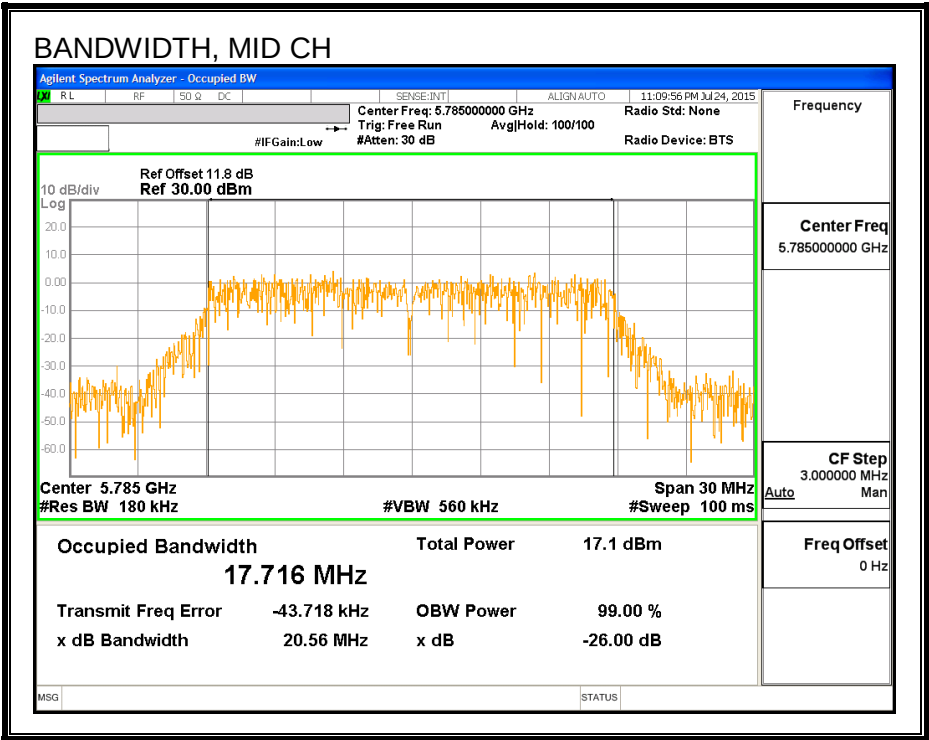
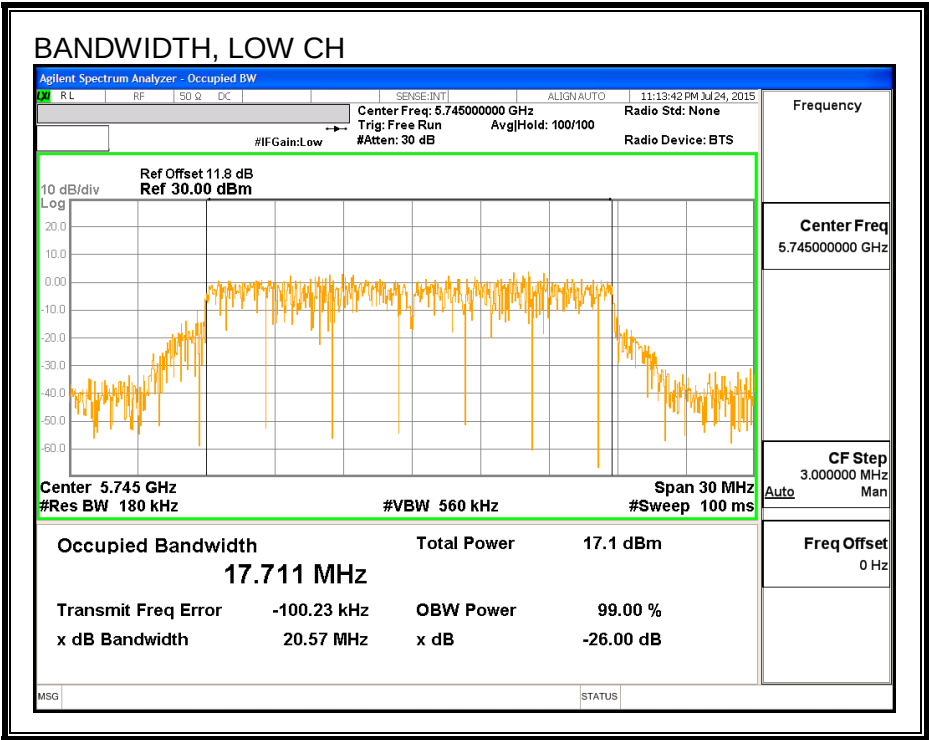
LIMITS

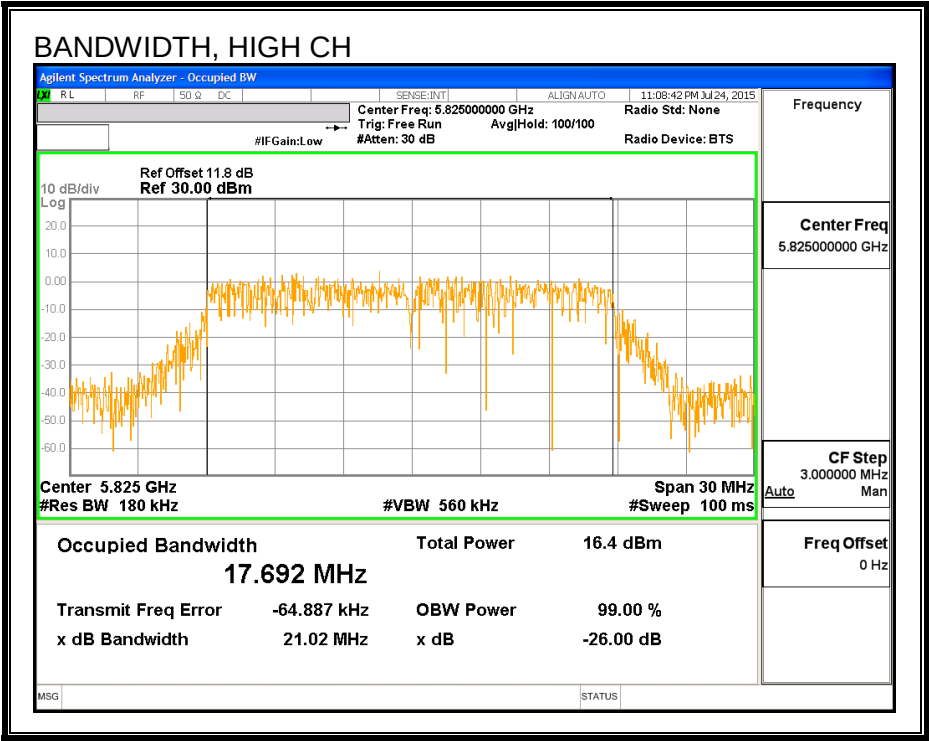
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.711
Mid	5785	17.716
High	5825	17.692

99% BANDWIDTH





8.51.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5745	15.44
Mid	5785	16.49
High	5825	16.00

8.51.5. 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.

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 for Power (dBi)	Power Limit (dBm)
Low	5745	3.10	30.00
Mid	5785	3.10	30.00
High	5825	3.10	30.00

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

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	15.44	15.44	30.00	-14.56
Mid	5785	16.49	16.49	30.00	-13.51
High	5825	16.00	16.00	30.00	-14.00

8.51.6. 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

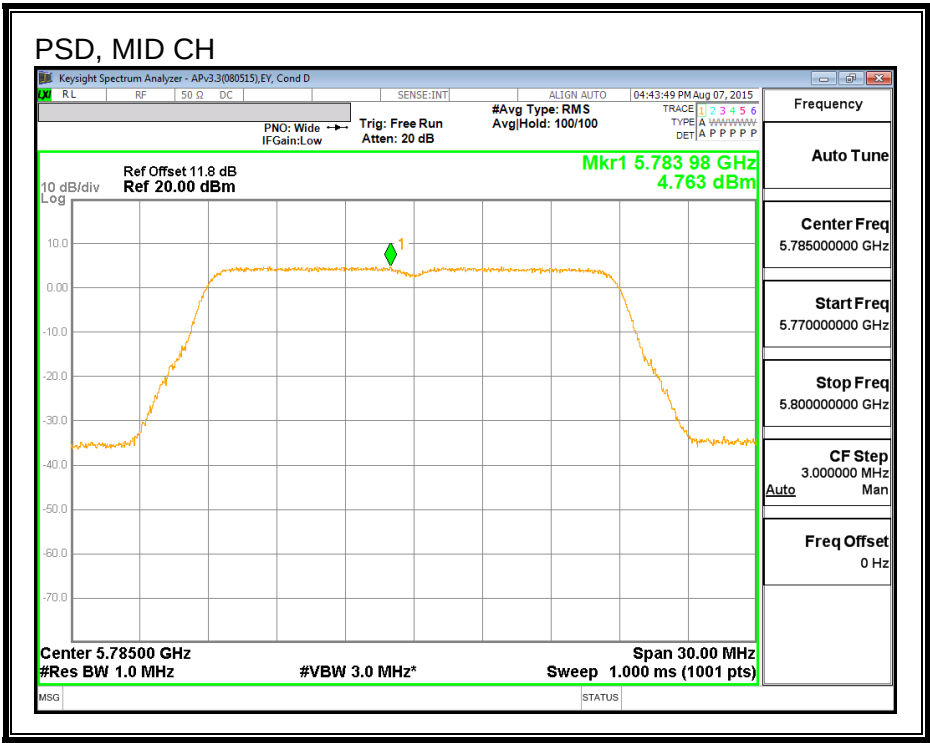
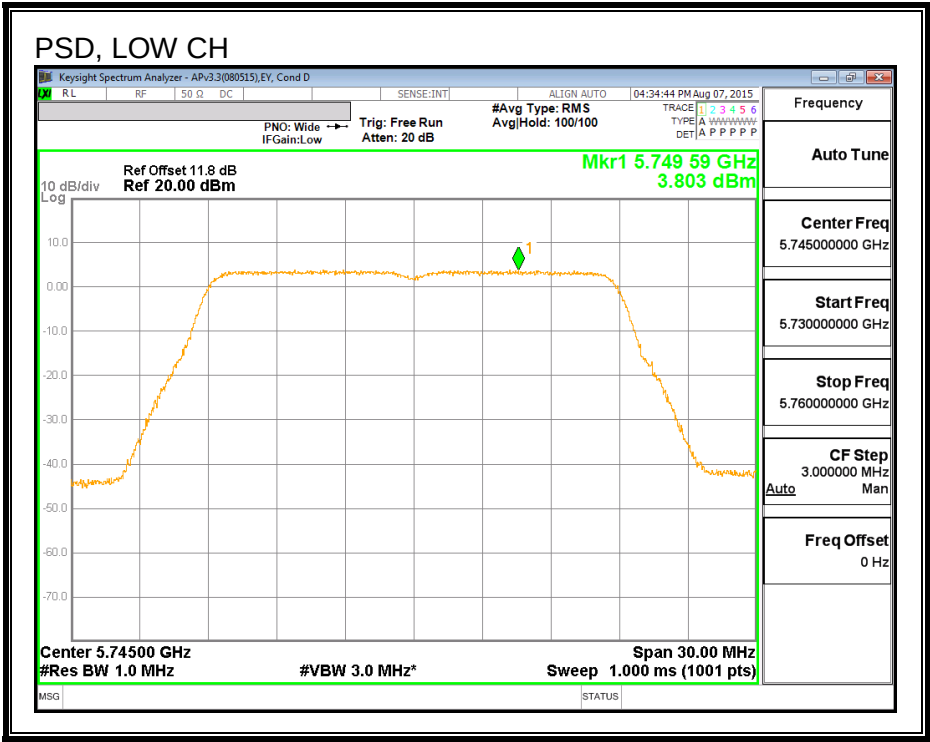
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	3.10	30.00
Mid	5785	3.10	30.00
High	5825	3.10	30.00

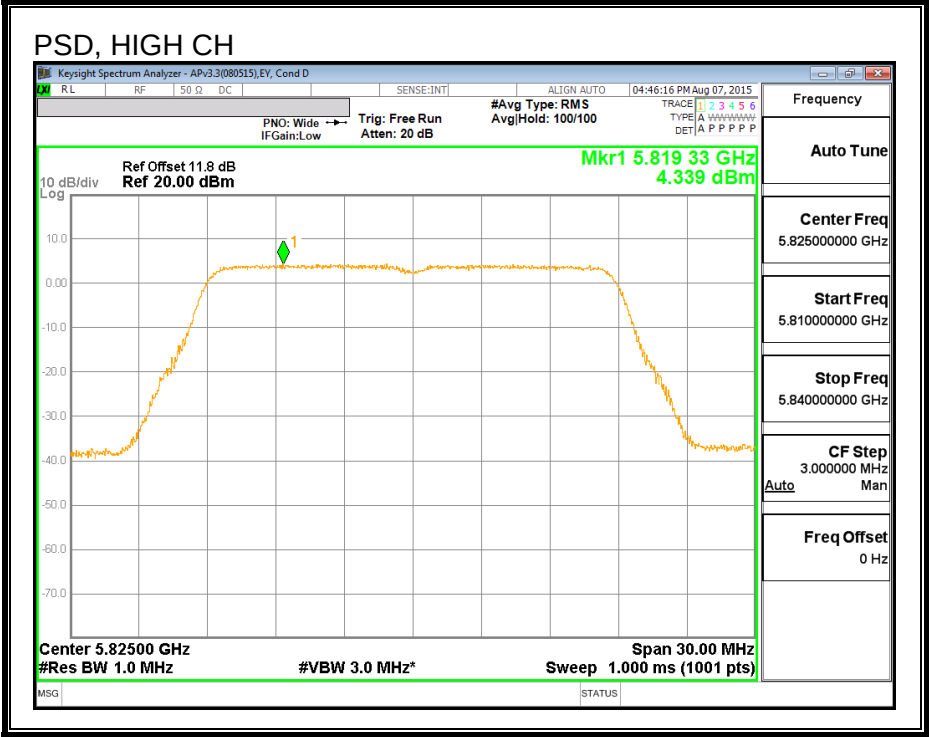
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.80	3.80	30.00	-26.20
Mid	5785	4.76	4.76	30.00	-25.24
High	5825	4.34	4.34	30.00	-25.66

PSD,





8.52. 802.11a CDD 2TX MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT20 CDD 2TX MODE.

8.53. 802.11n HT20 2Tx CDD MODE IN THE 5.8 GHz BAND

8.53.1. 6 dB BANDWIDTH

LIMITS

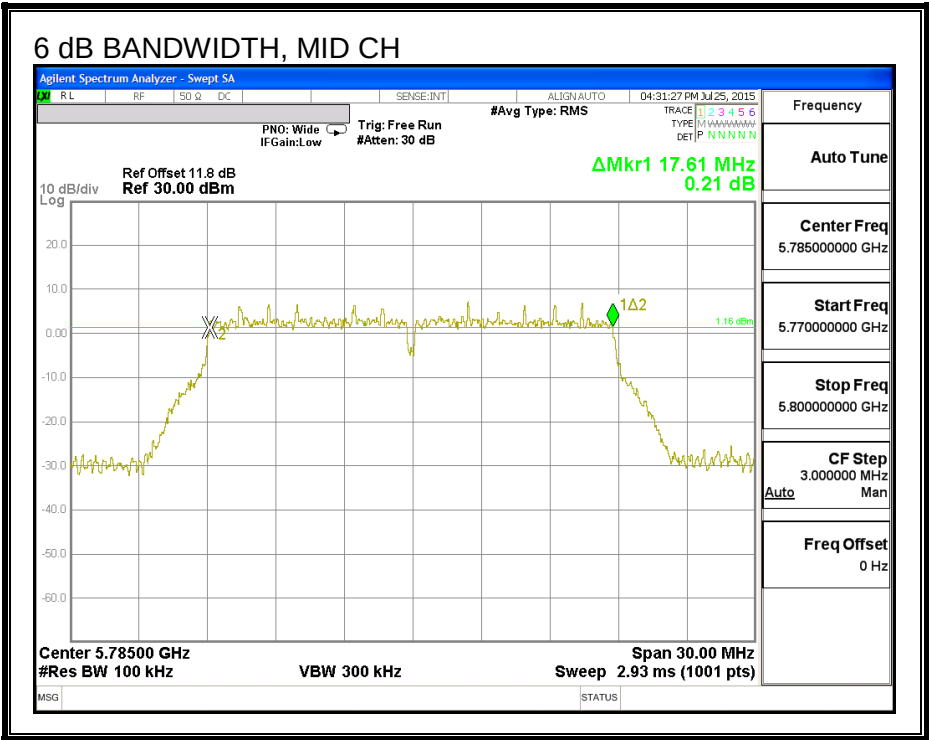
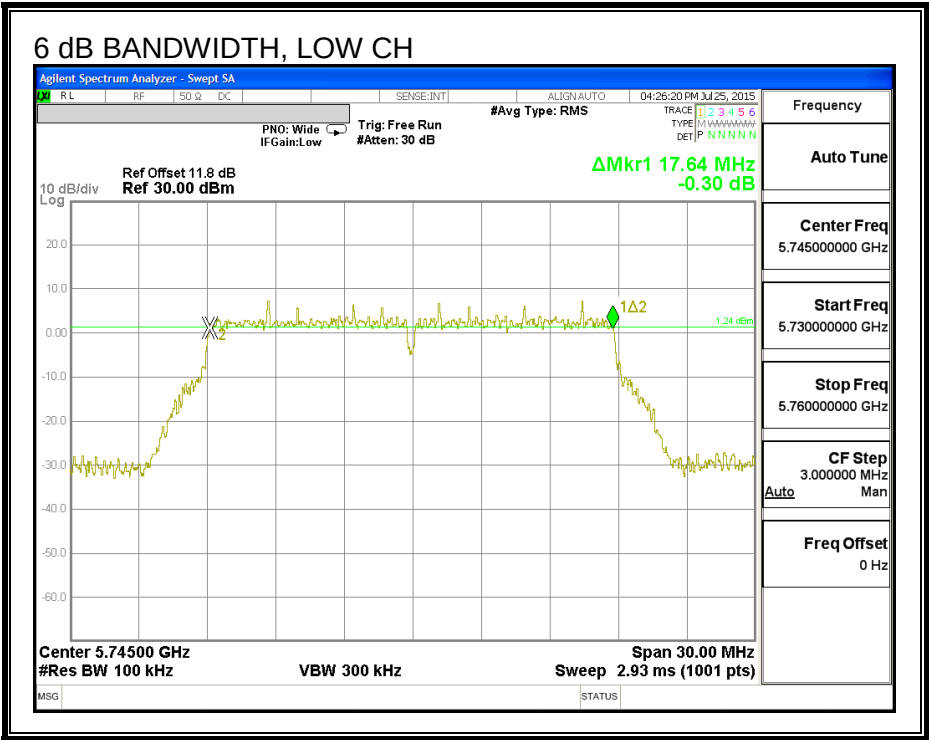
FCC §15.407 (e)

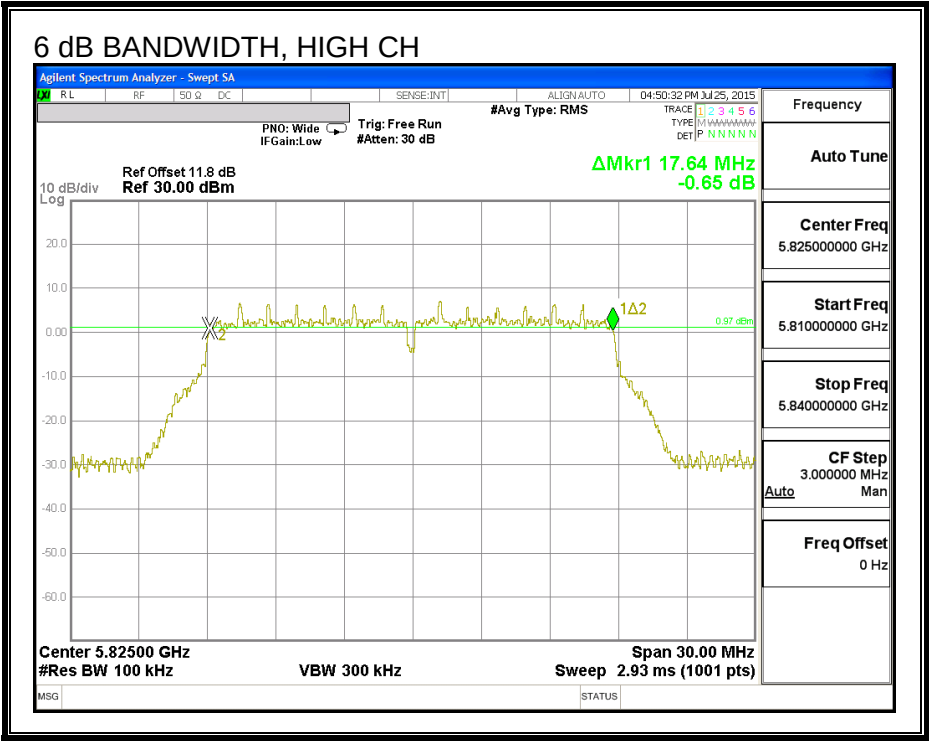
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

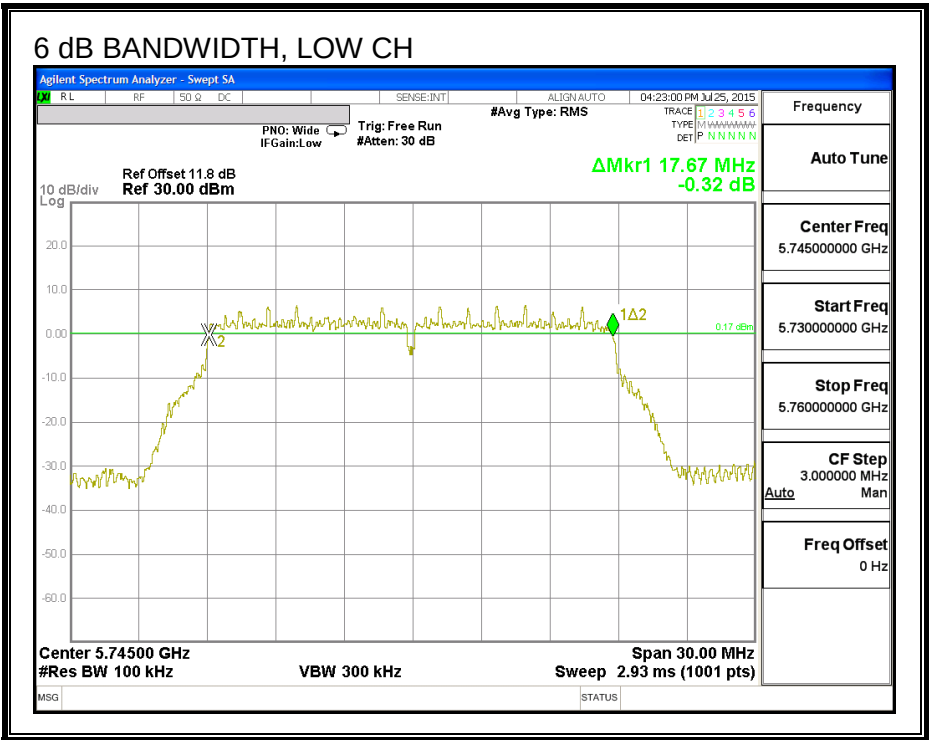
Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.64	17.67	0.5
Mid	5785	17.61	17.64	0.5
High	5825	17.64	17.67	0.5

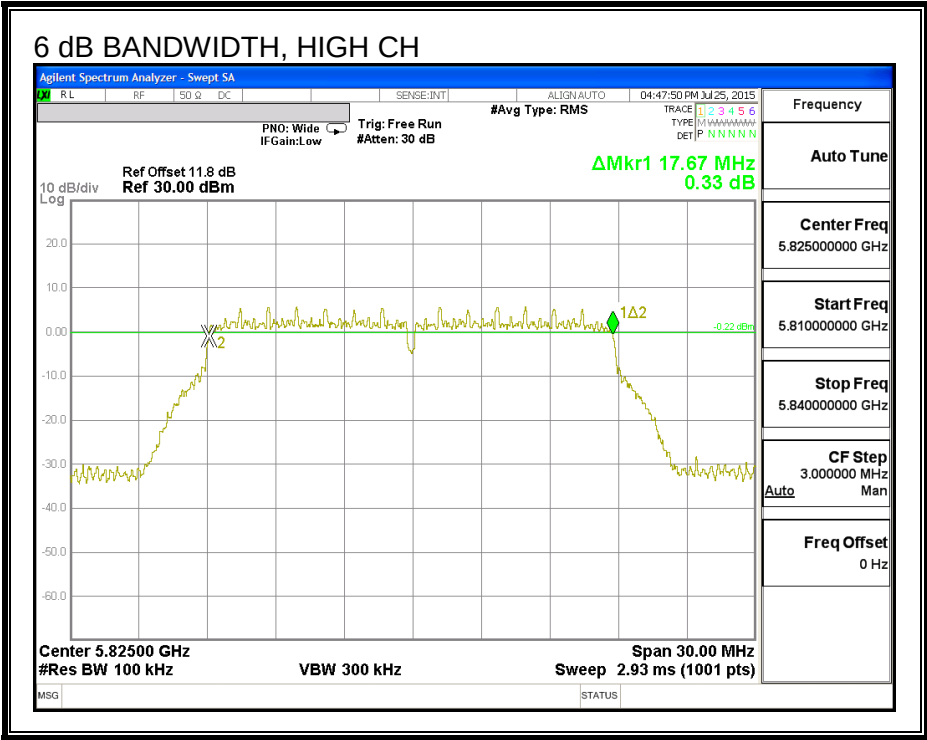
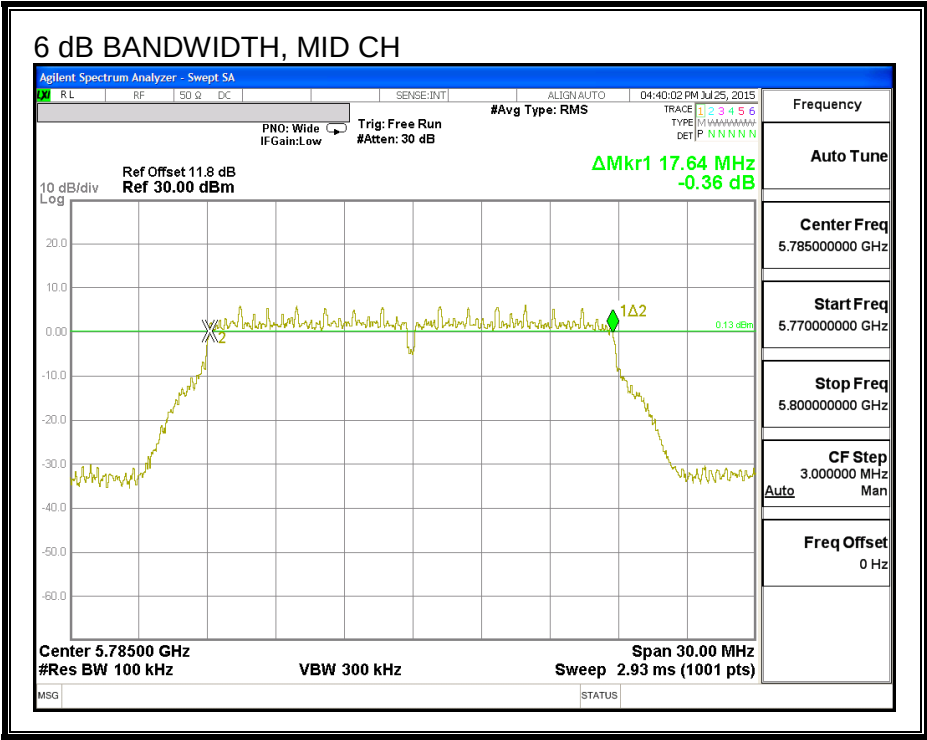
6 dB BANDWIDTH, CHAIN 0





6 dB BANDWIDTH, CHAIN 1





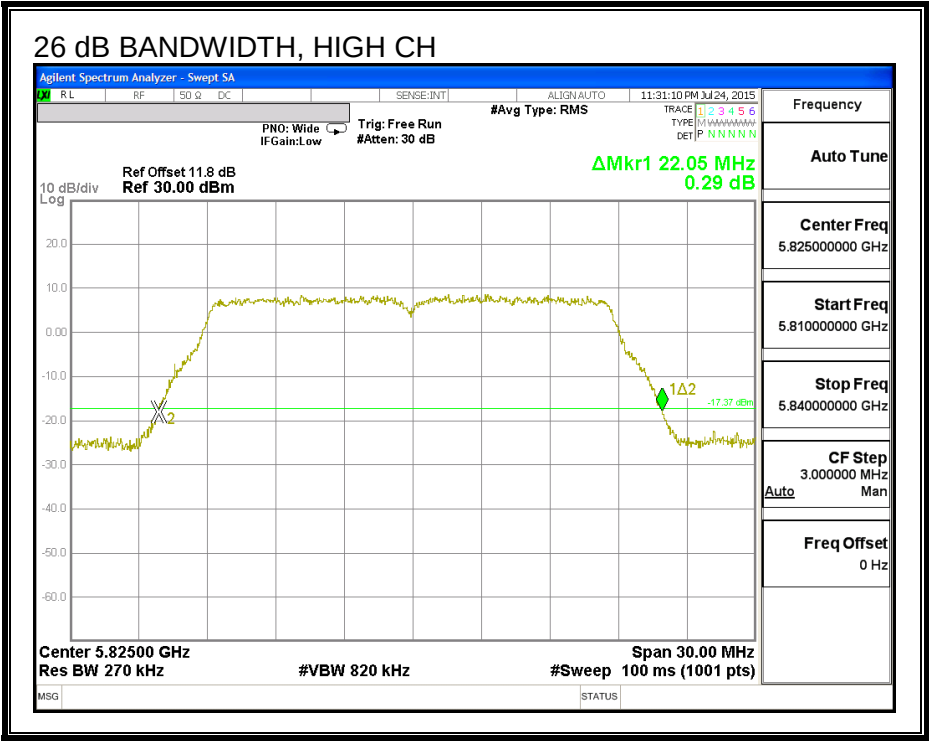
8.53.2. 26 dB BANDWIDTH

LIMITS

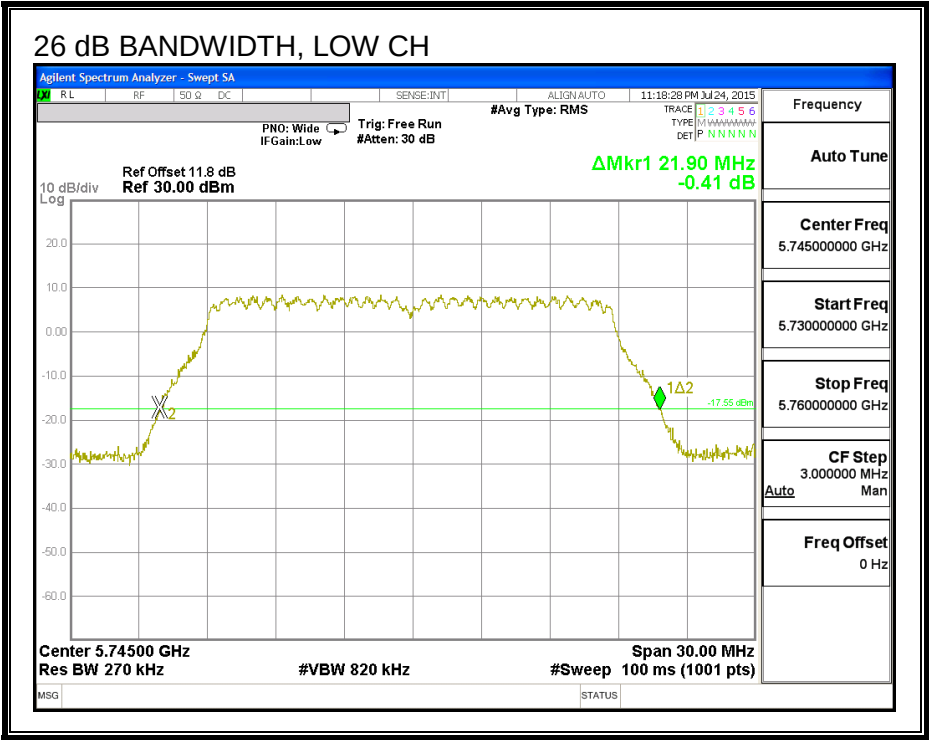
None, for reporting purposes only.

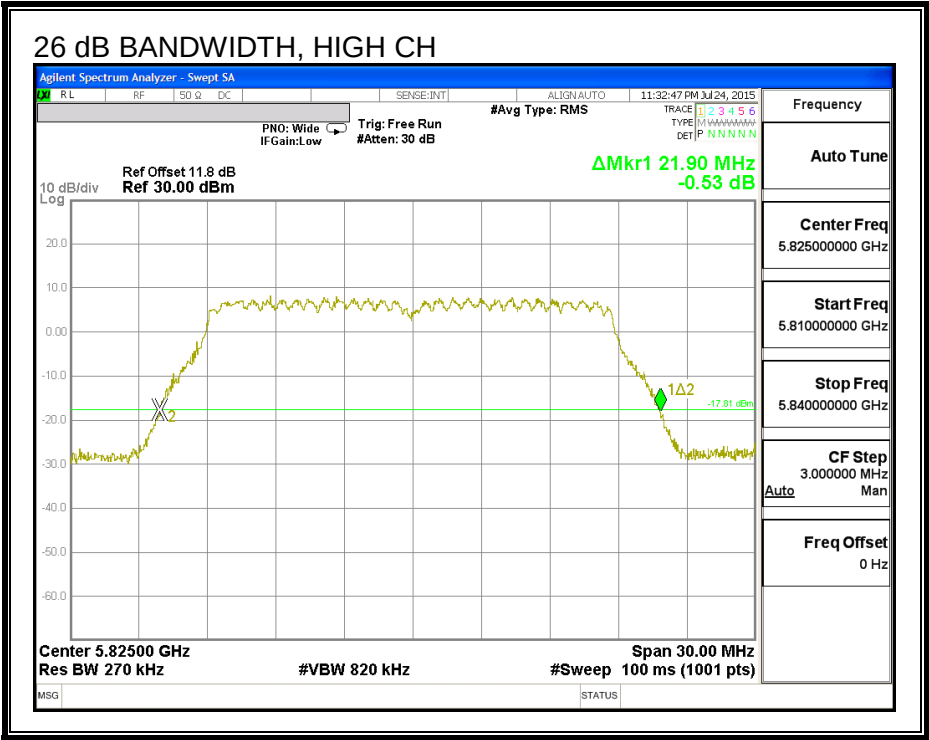
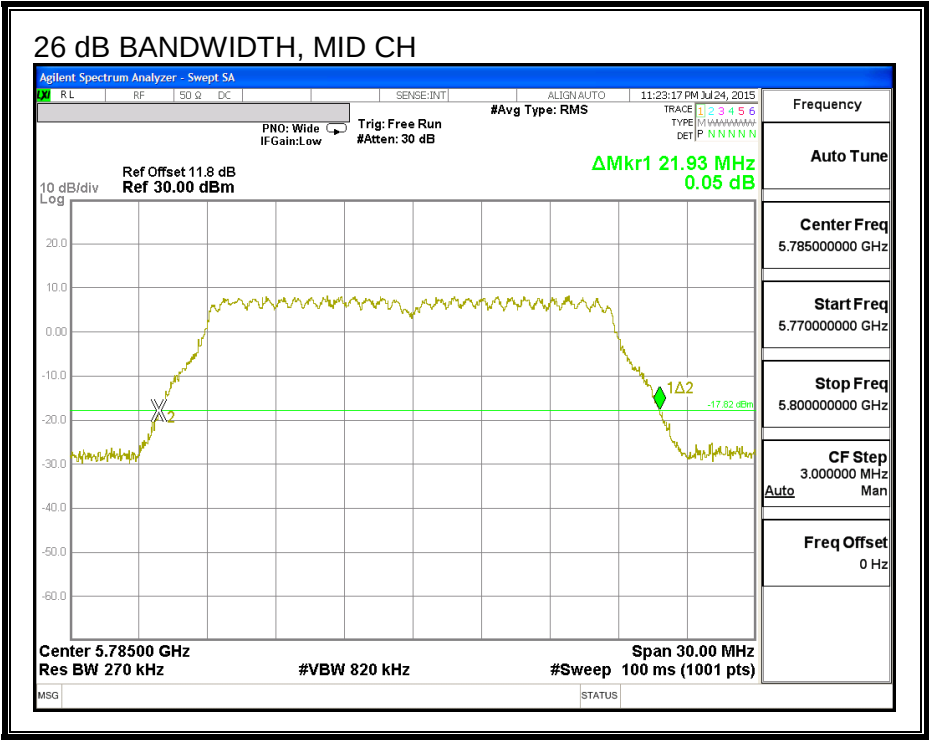
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	21.93	21.90
Mid	5785	22.02	21.93
High	5825	22.05	21.90



26 dB BANDWIDTH, CHAIN 1





8.53.3. 99% BANDWIDTH

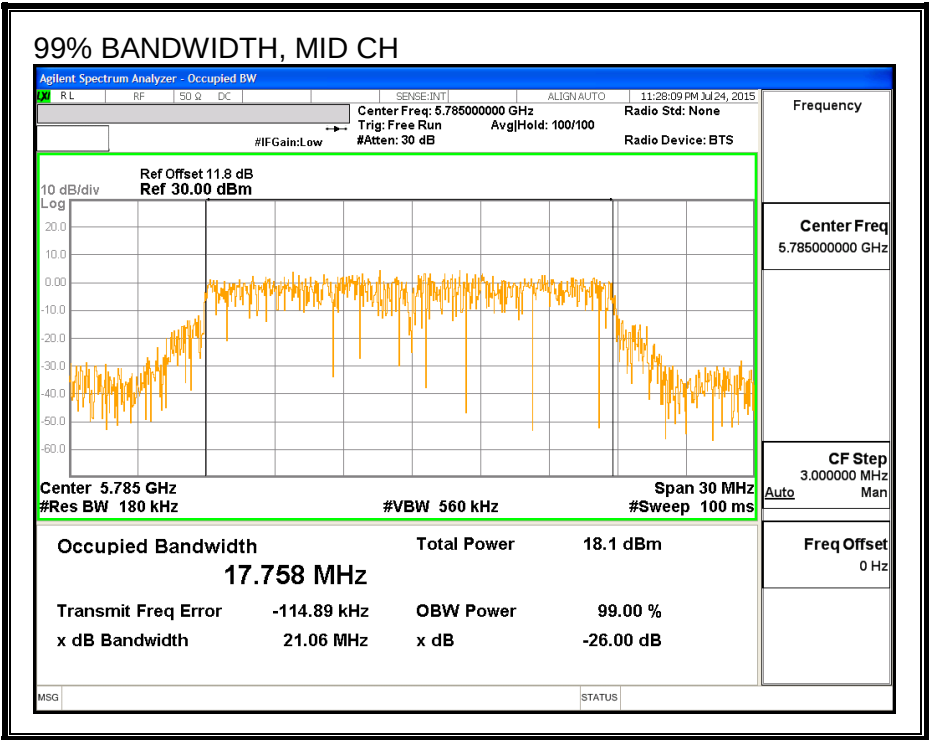
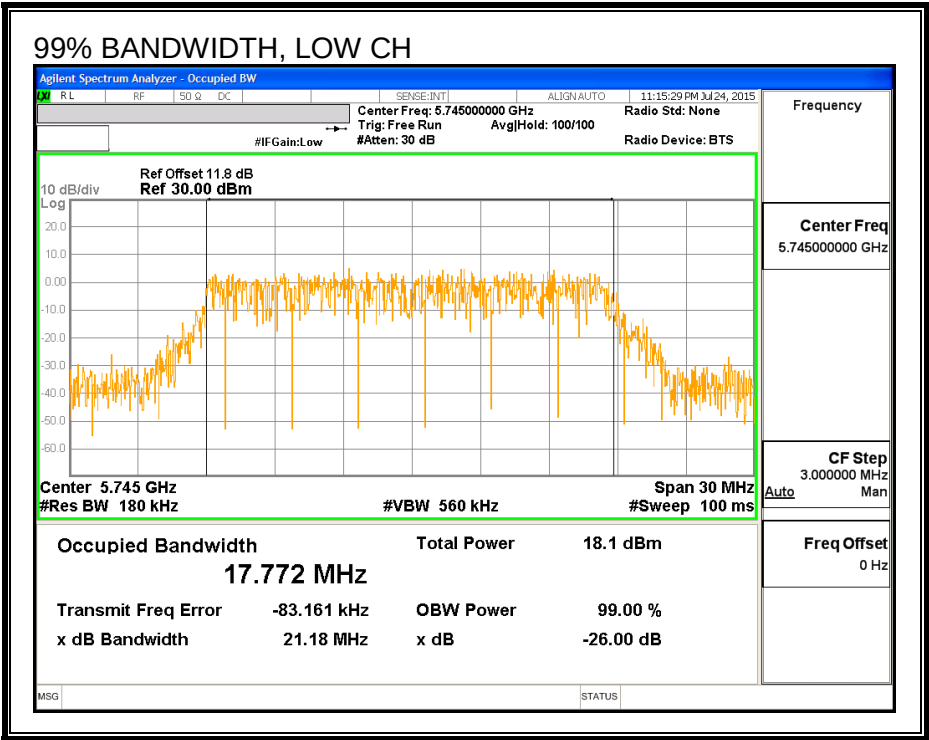
LIMITS

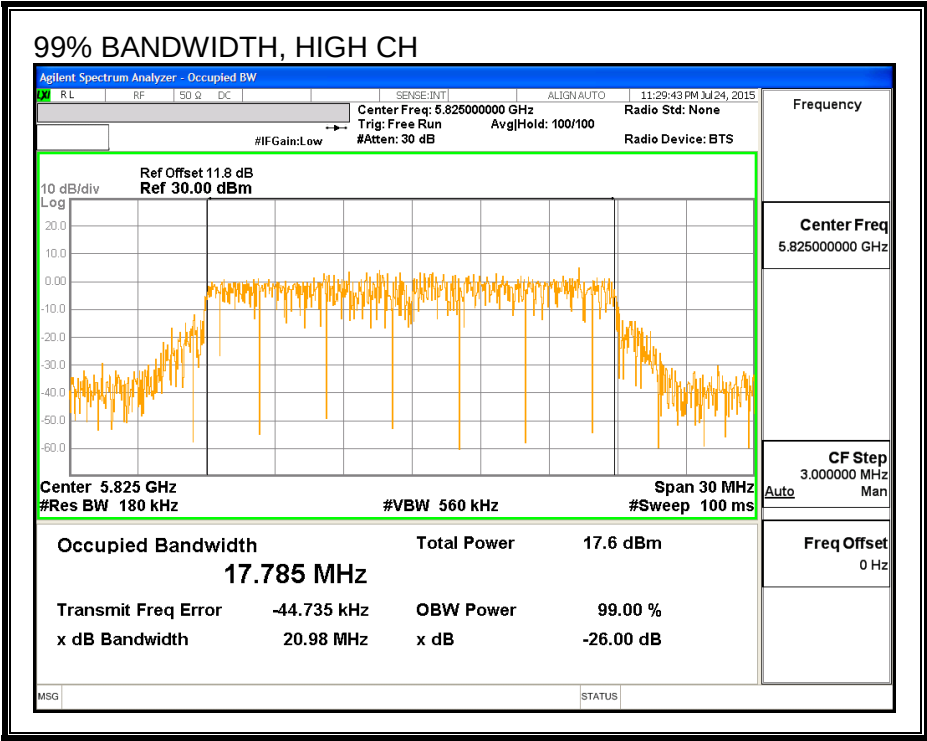
None; for reporting purposes only.

RESULTS

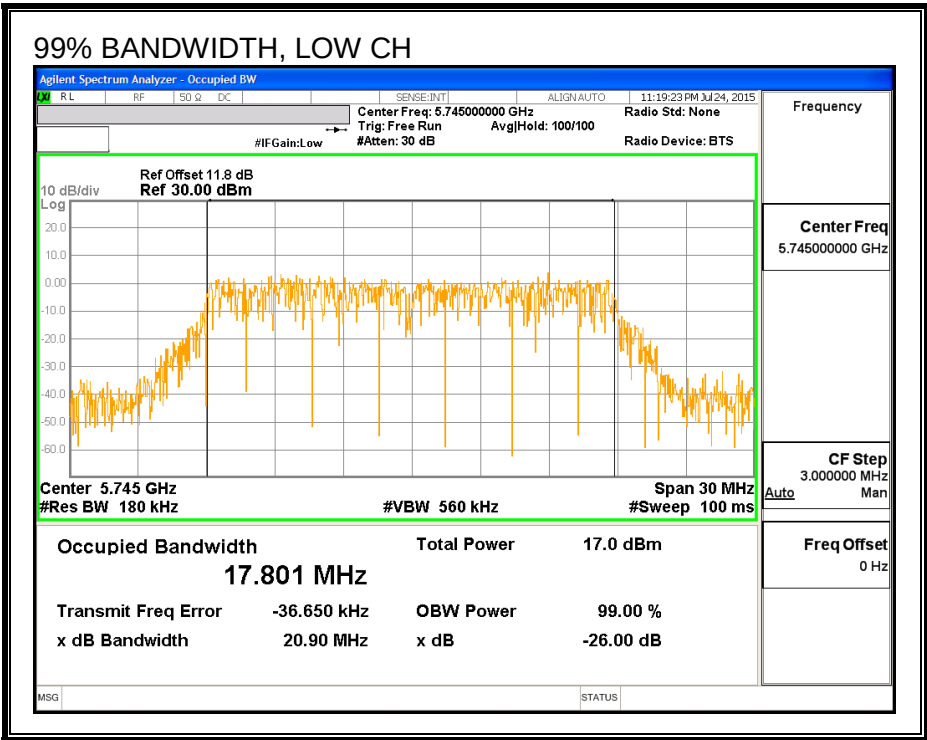
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.772	17.801
Mid	5785	17.758	17.797
High	5825	17.785	17.686

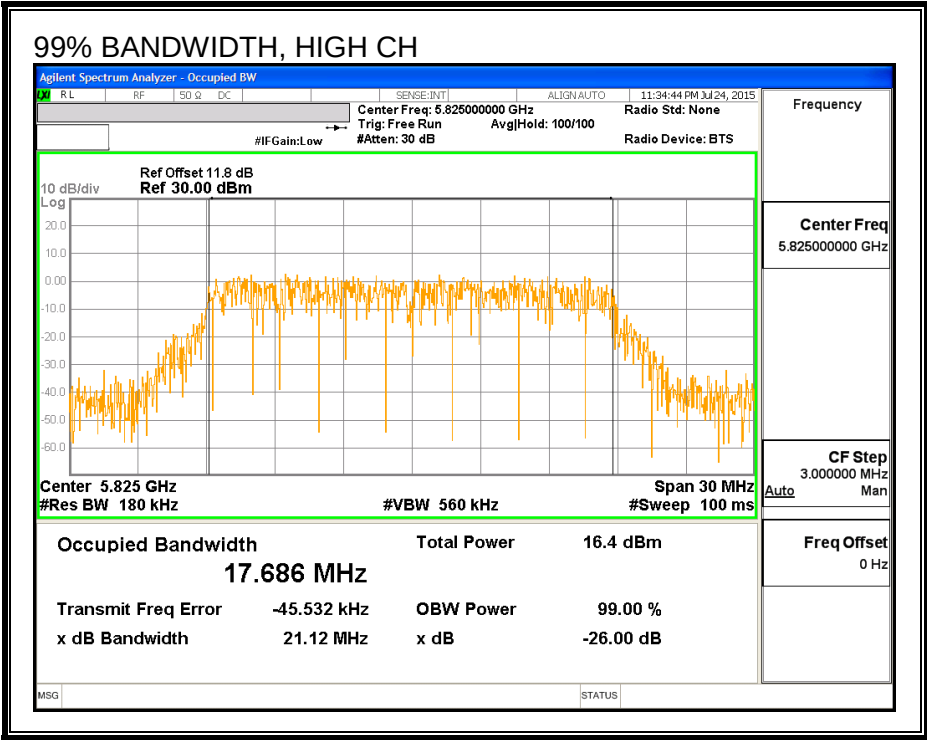
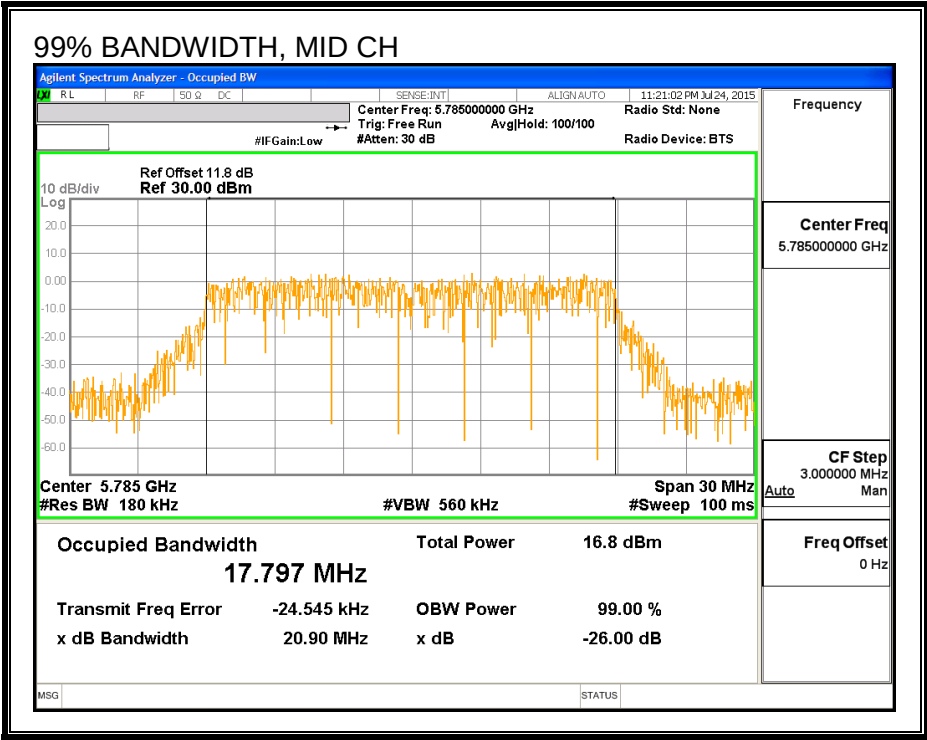
99% BANDWIDTH, CHAIN 0





99% BANDWIDTH, CHAIN 1





8.53.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	14.93	14.95	17.95
Mid	5785	15.97	16.43	19.22
High	5825	15.44	15.48	18.47

8.53.5. 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.

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)	Uncorrelated Chains Directional Gain (dBi)
2.40	3.10	2.76

RESULTS

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	2.76	30.00
Mid	5785	2.76	30.00
High	5825	2.76	30.00

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

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	14.93	14.95	17.95	30.00	-12.05
Mid	5785	15.97	16.43	19.22	30.00	-10.78
High	5825	15.44	15.48	18.47	30.00	-11.53

8.53.6. 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 1 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
2.40	3.10	5.77

RESULTS

Antenna Gain and Limits

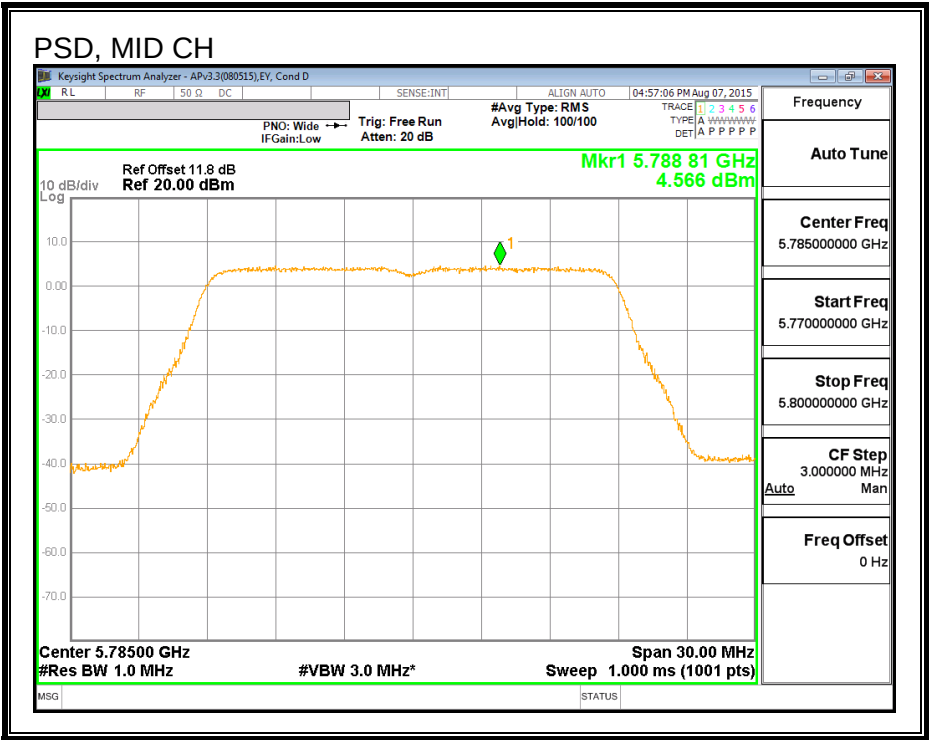
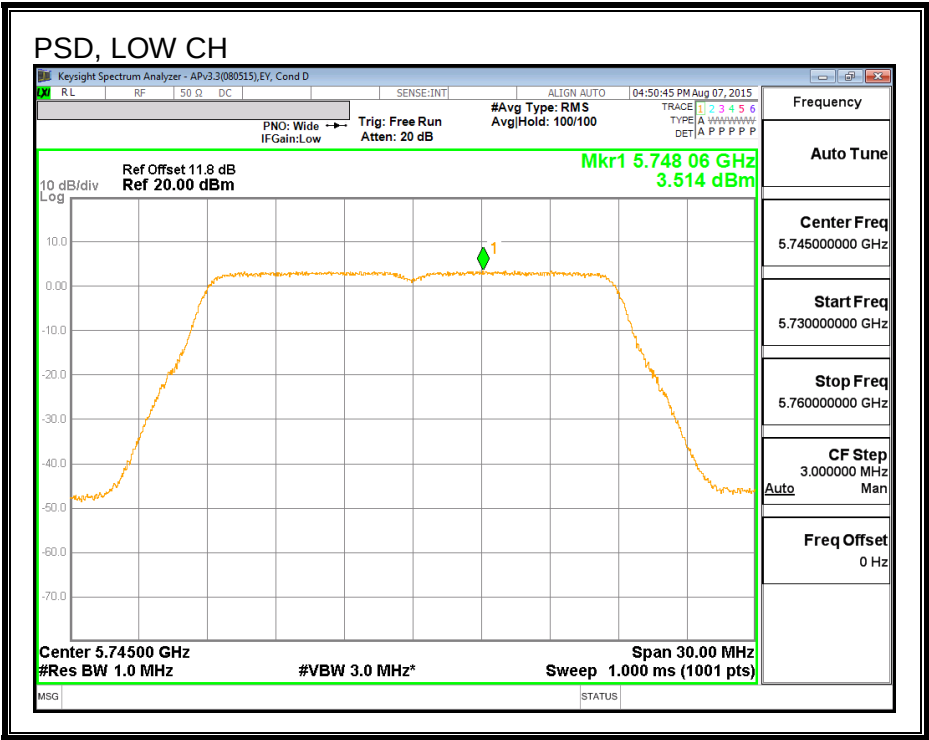
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	5.77	30.00
Mid	5785	5.77	30.00
High	5825	5.77	30.00

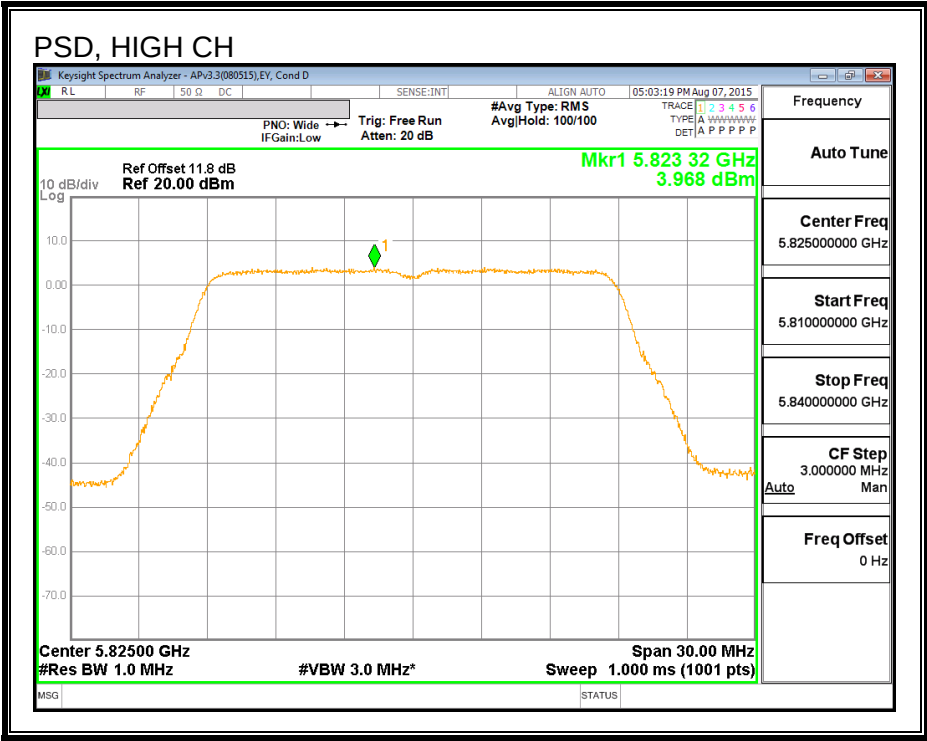
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD
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PSD Results

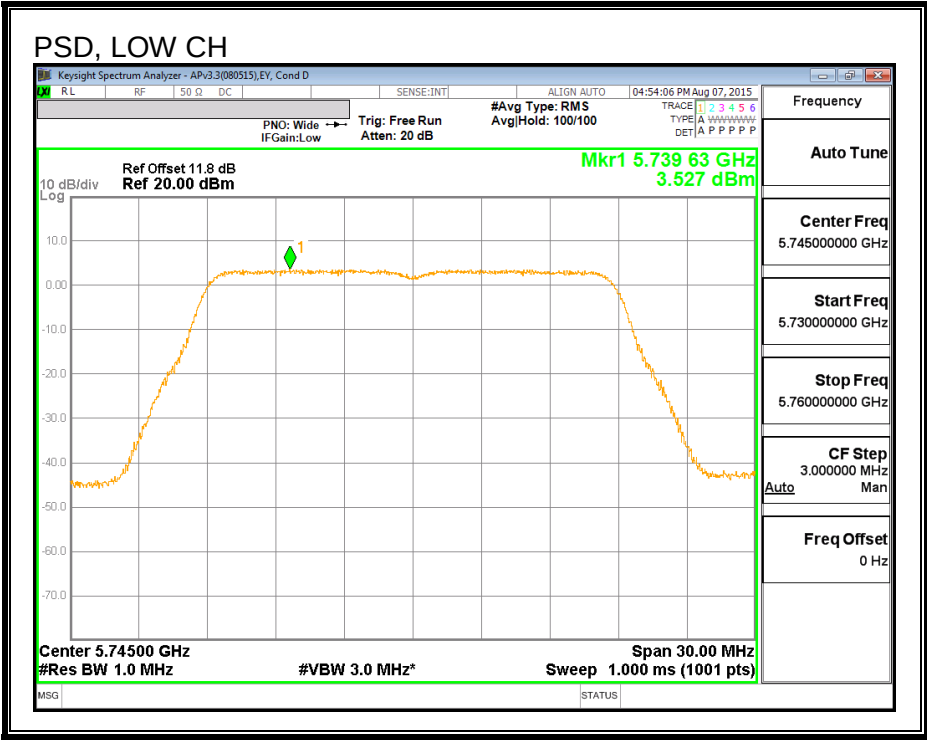
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.51	3.53	6.53	30.00	-23.47
Mid	5785	4.57	4.68	7.64	30.00	-22.36
High	5825	3.97	4.06	7.02	30.00	-22.98

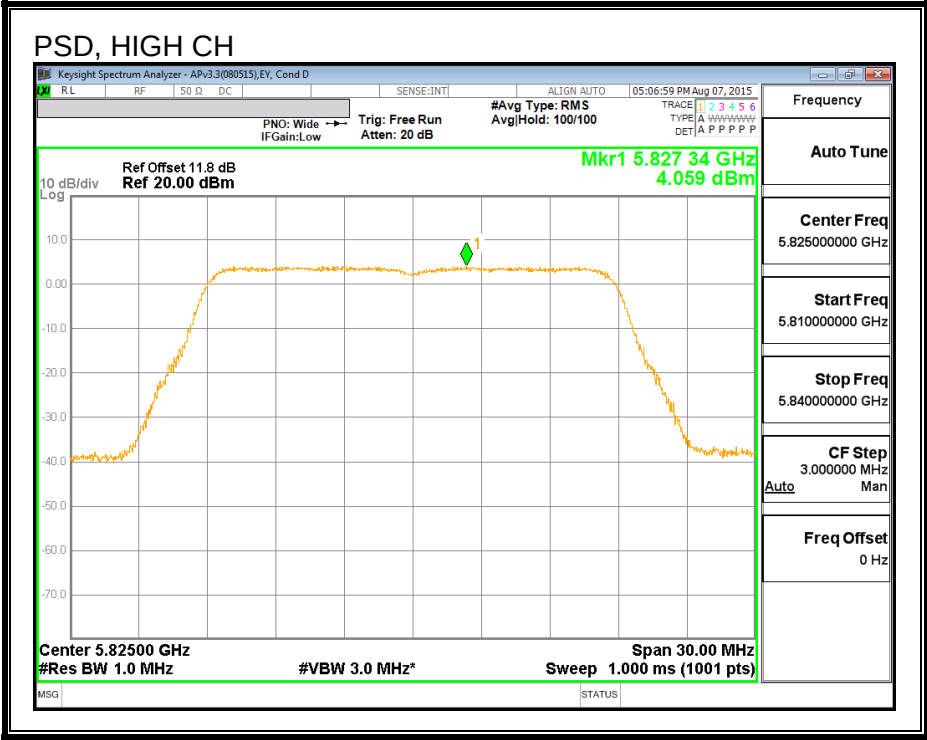
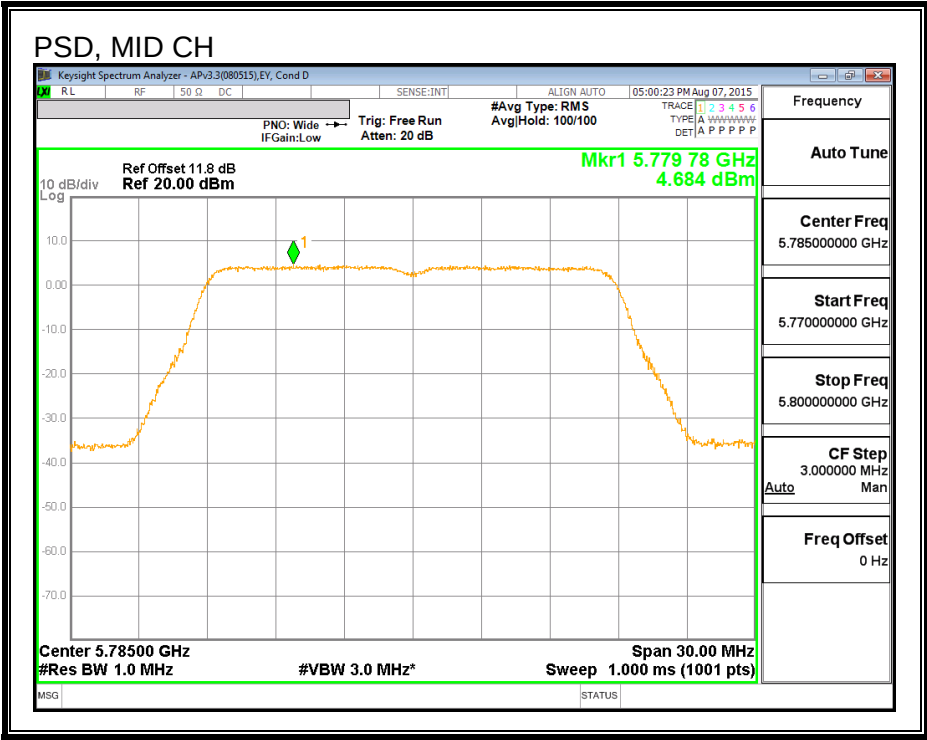
PSD, CHAIN 0





PSD, CHAIN 1





8.54. 802.11n HT20 2Tx STBC/SDM MODE IN THE 5.8 GHz BAND

Note: Covered by 802.11n HT20 2Tx CDD MODE

8.55. 802.11n HT40 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.55.1. 6 dB BANDWIDTH

LIMITS

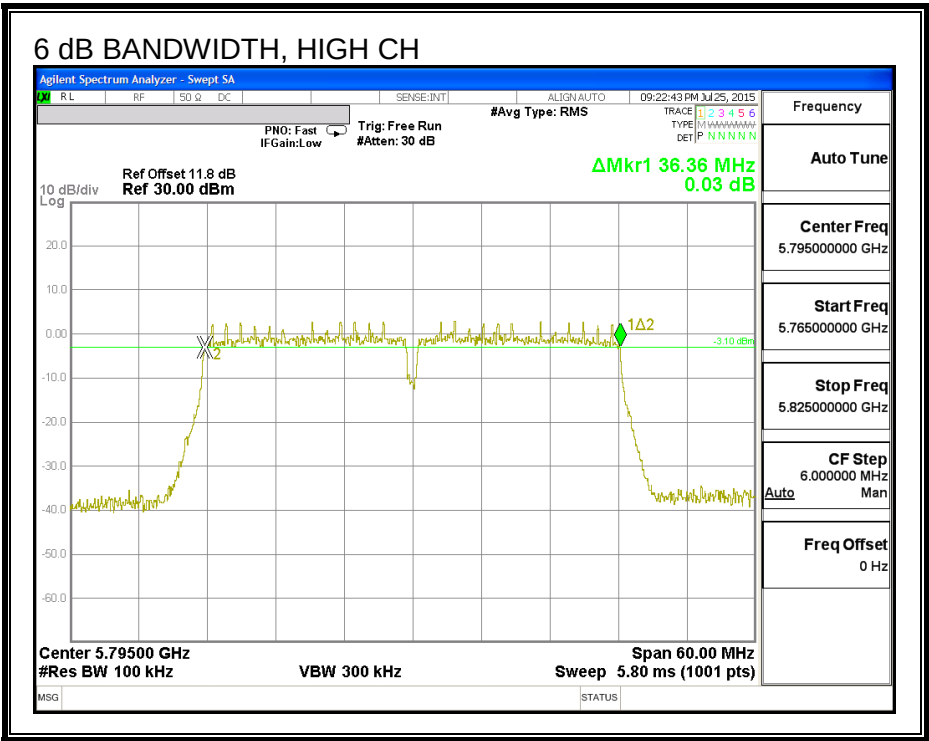
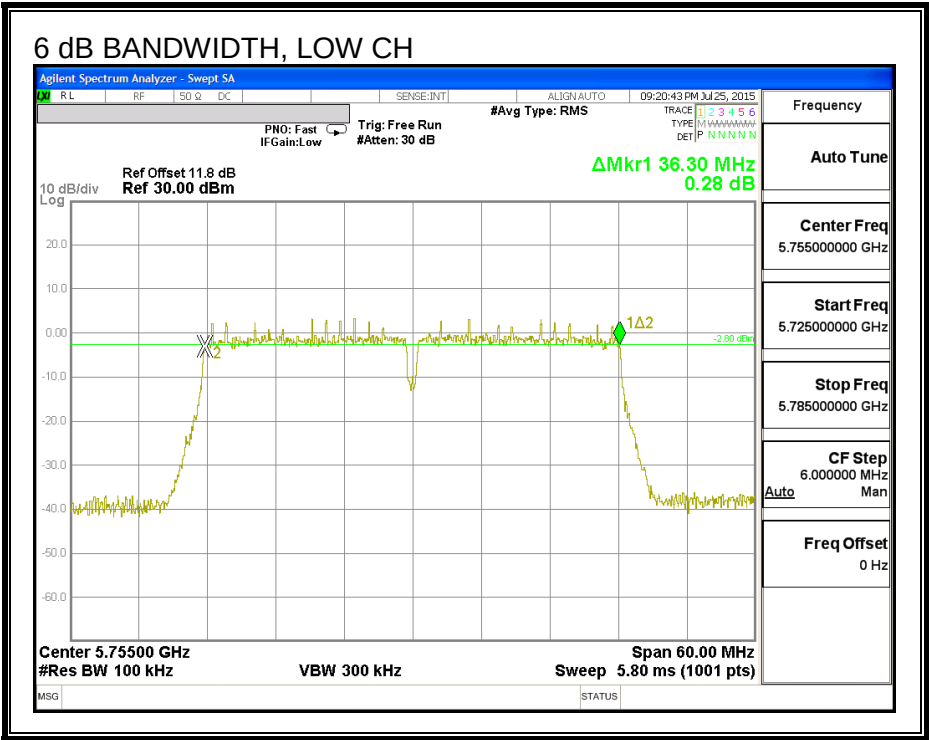
FCC §15.407 (e)

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

RESULTS

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

6 dB BANDWIDTH



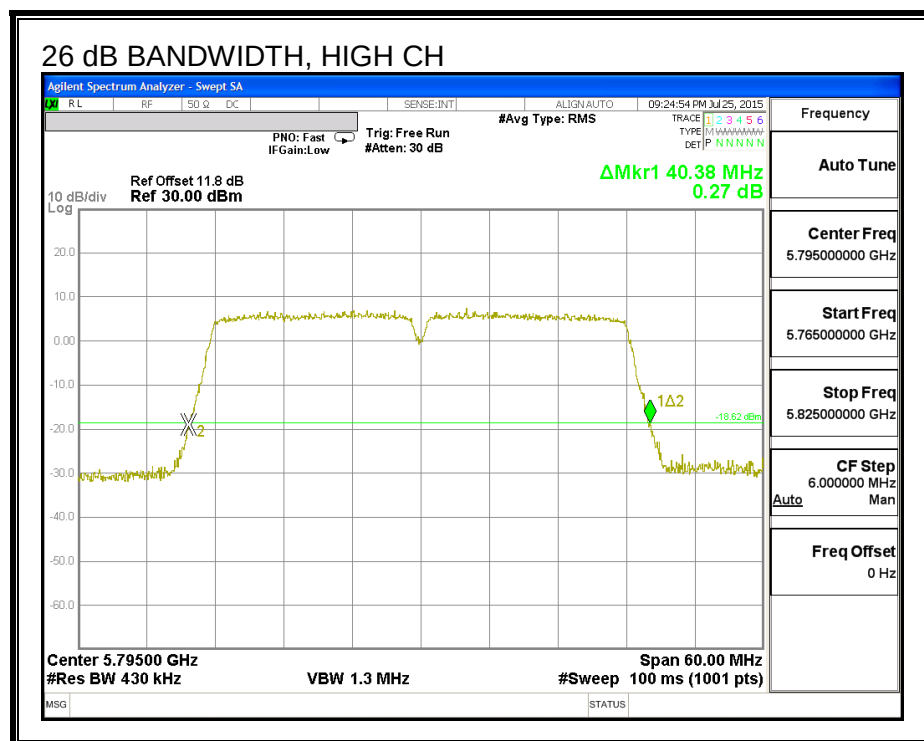
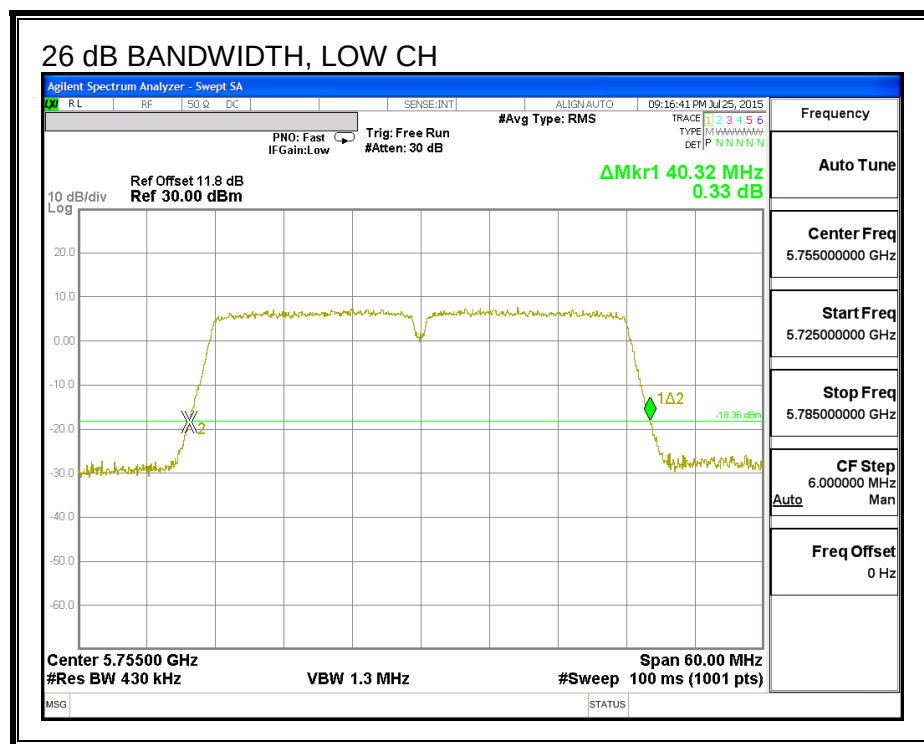
8.55.2. 26 dB BANDWIDTH

LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	40.32
High	5795	40.38



8.55.3. 99% BANDWIDTH

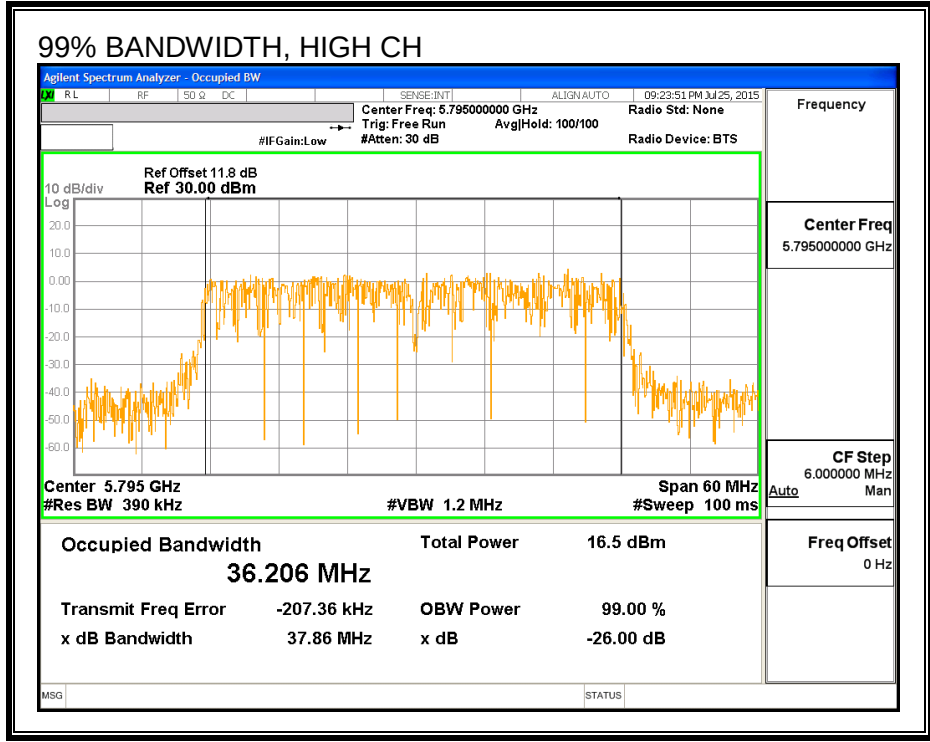
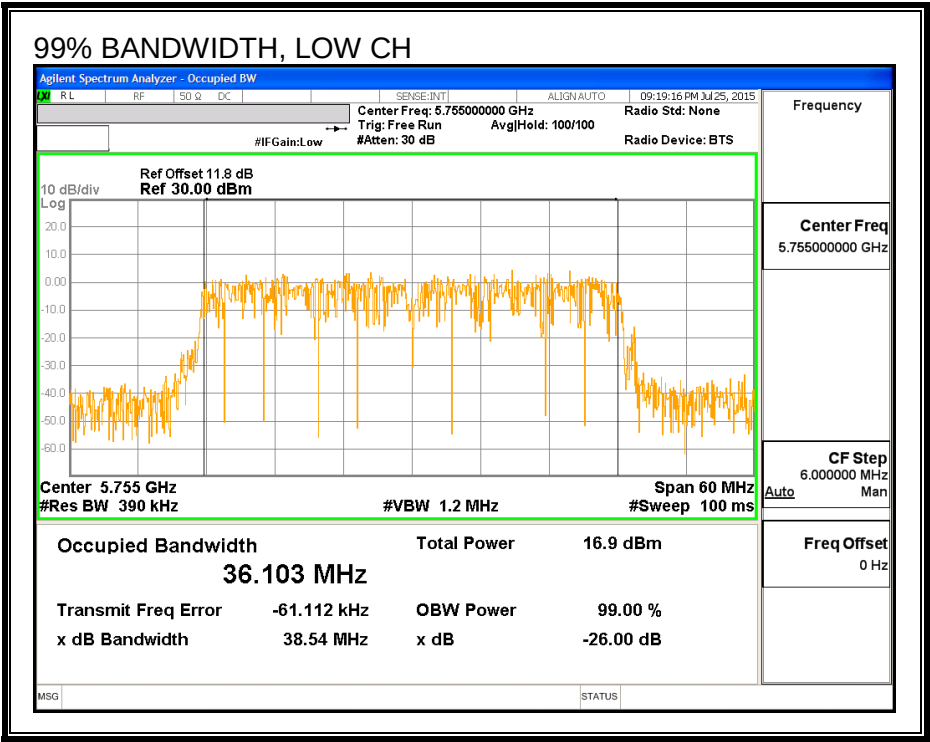
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.103
High	5795	36.206

99% BANDWIDTH



8.55.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5755	14.96
High	5795	15.98

8.55.5. 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.

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)
Low	5755	2.40	30.00
High	5795	2.40	30.00

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

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	14.96	14.96	30.00	-15.04
High	5795	15.98	15.98	30.00	-14.02

8.55.6. 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

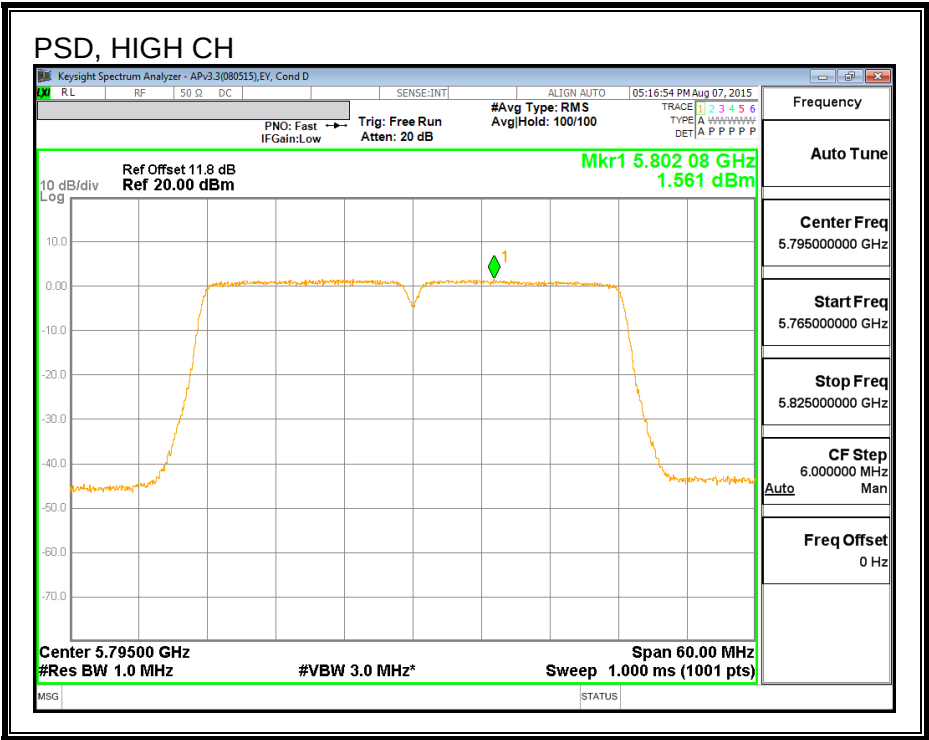
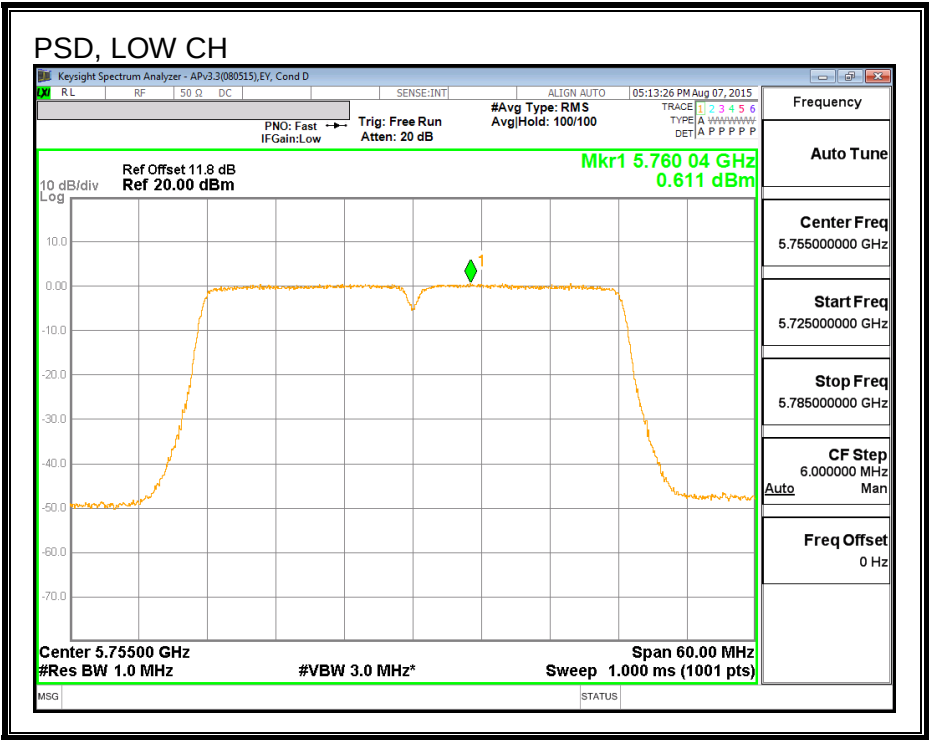
Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5755	2.40	30.00
High	5795	2.40	30.00

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

Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	0.61	0.61	30.00	-29.39
High	5795	1.56	1.56	30.00	-28.44

PSD,



8.56. 802.11n HT40 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.56.1. 6 dB BANDWIDTH

LIMITS

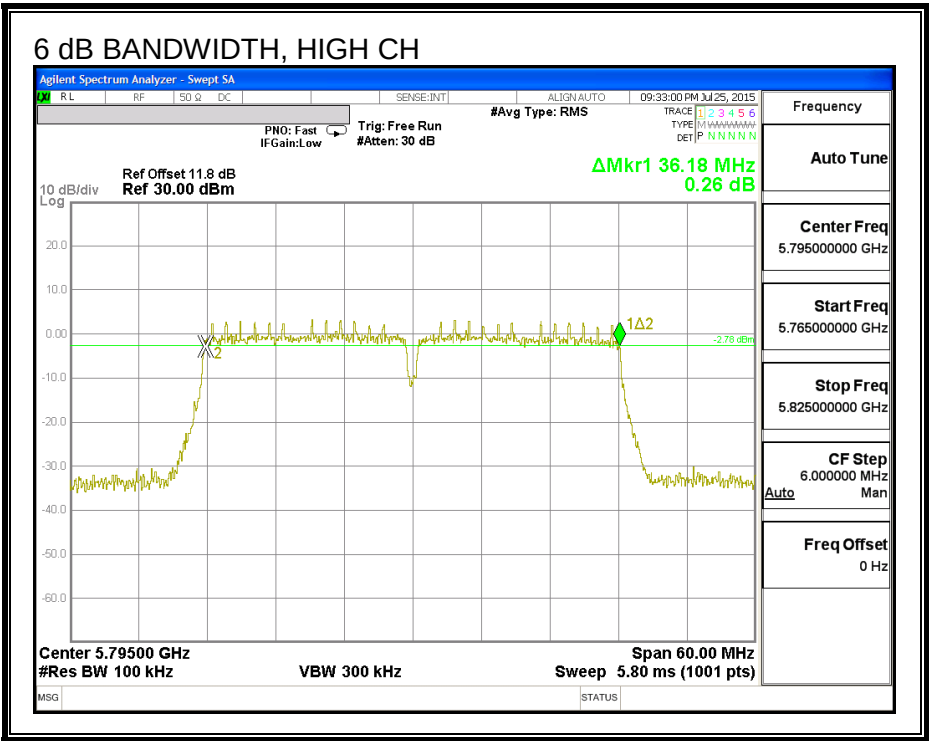
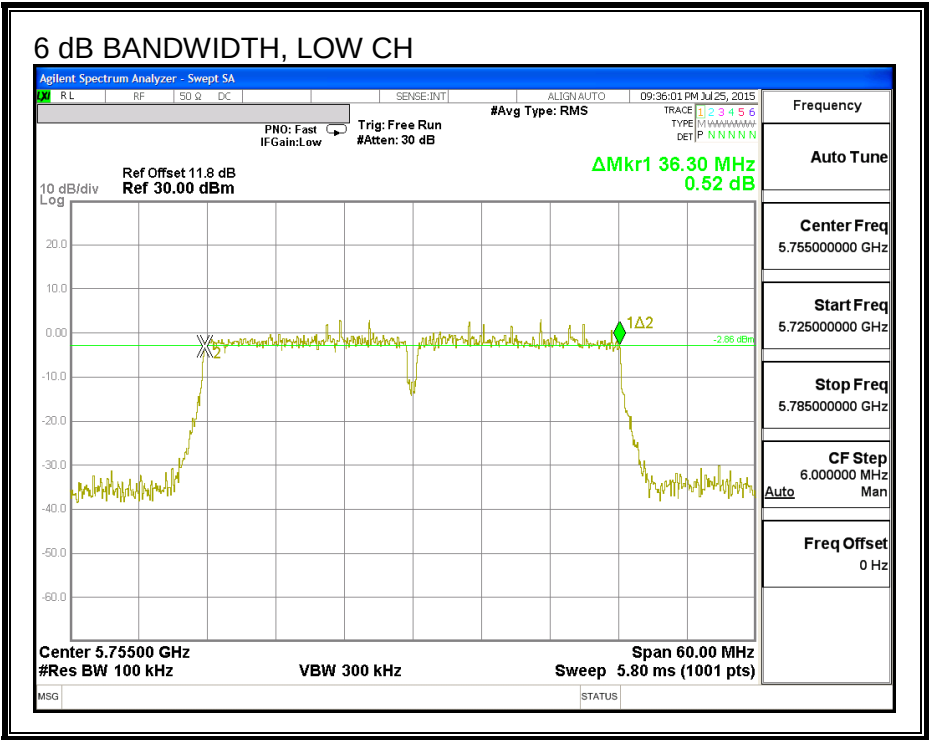
FCC §15.407 (e)

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

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5755	36.30	0.5
High	5795	36.18	0.5

6 dB BANDWIDTH



8.56.2. 26 dB BANDWIDTH

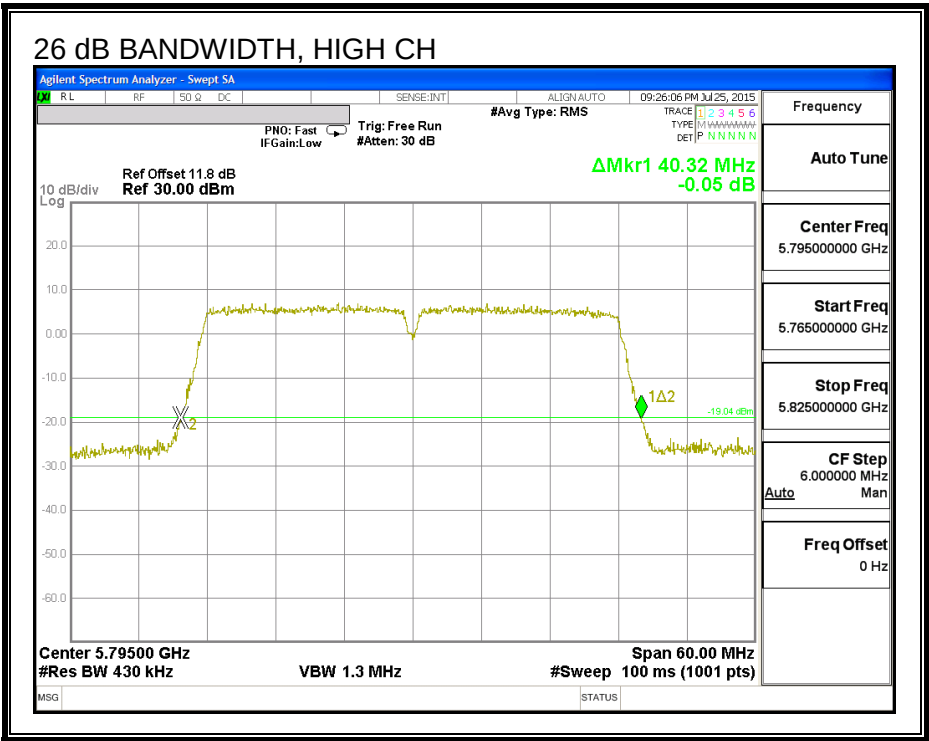
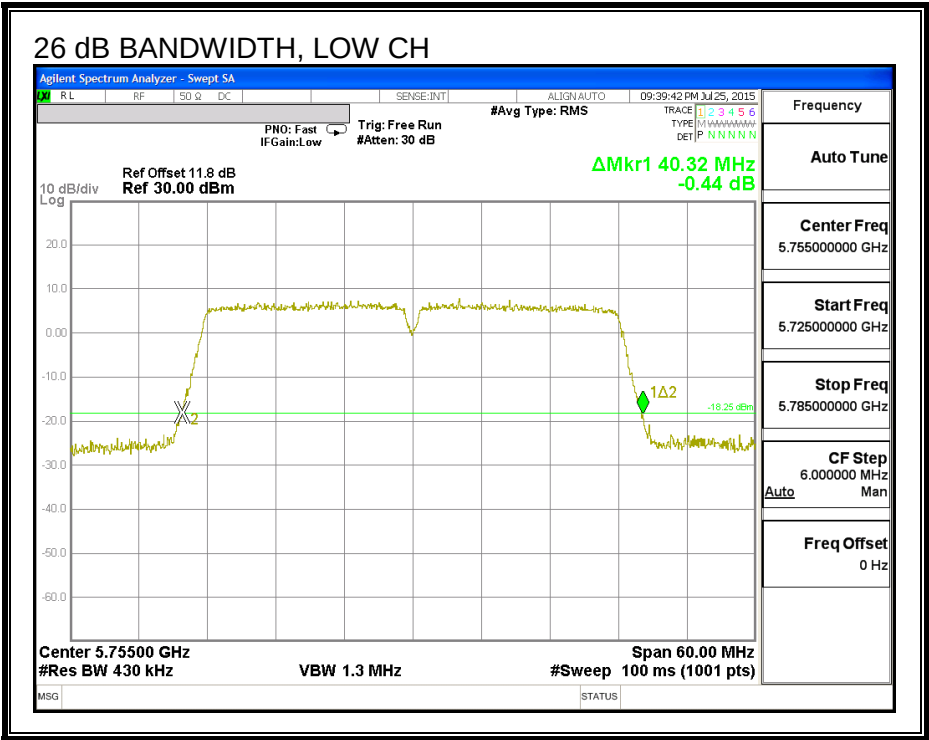
LIMITS

None, for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5755	40.32
High	5795	40.32

26 dB BANDWIDTH



8.56.3. 99% BANDWIDTH

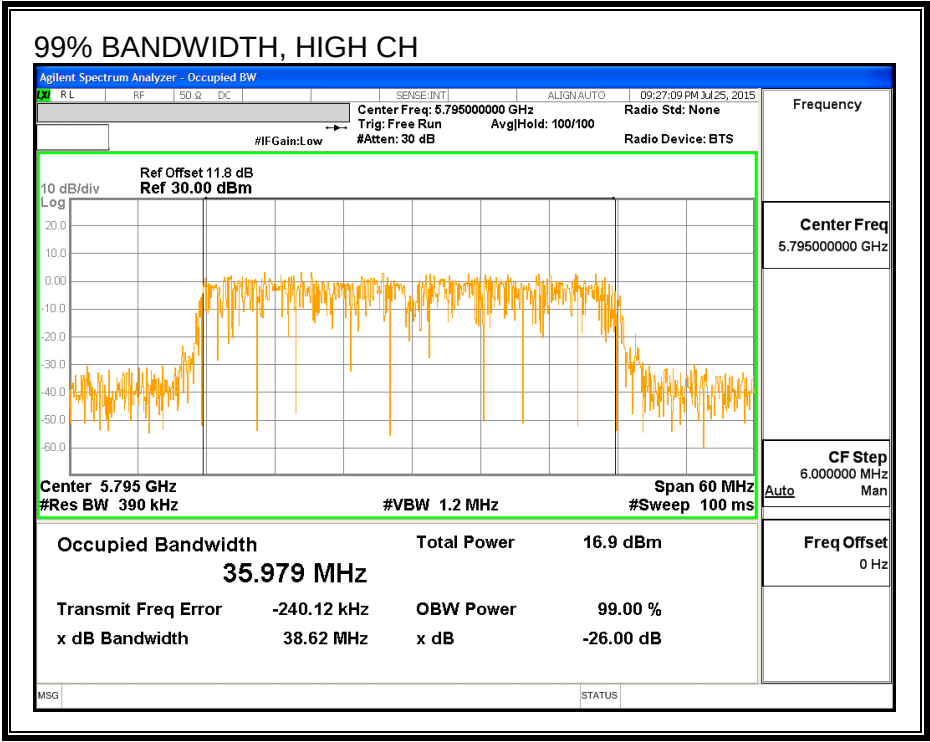
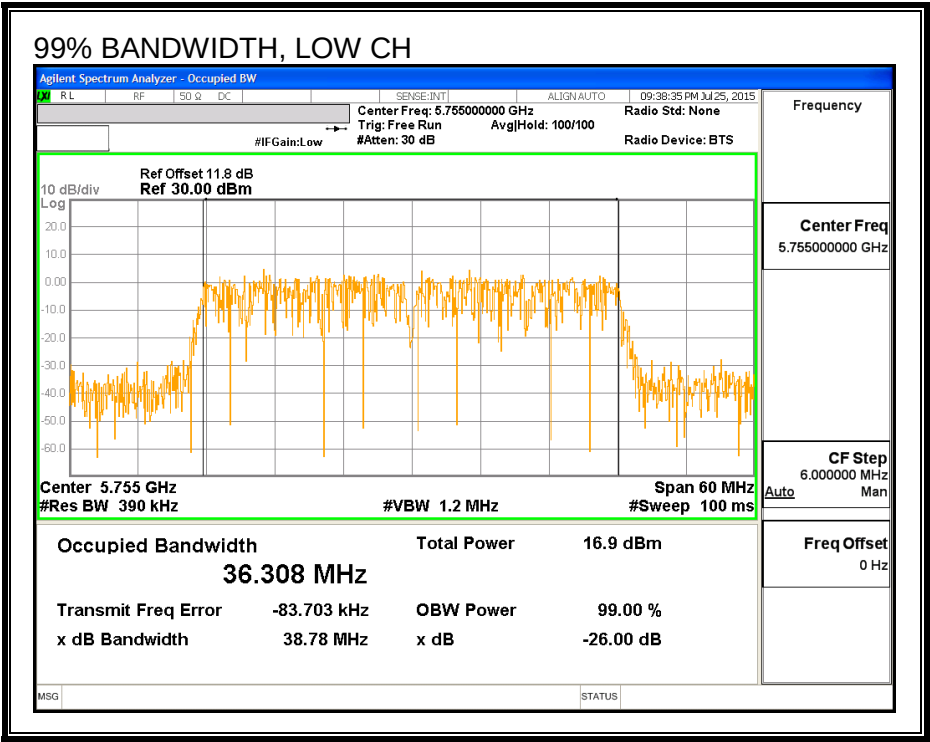
LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5755	36.308
High	5795	35.979

99% BANDWIDTH



8.56.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	5755	14.99
High	5795	15.93

8.56.5. 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.

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)
Low	5755	3.10	30.00
High	5795	3.10	30.00

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

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5755	14.99	14.99	30.00	-15.01
High	5795	15.93	15.93	30.00	-14.07

8.56.6. 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)
Low	5755	3.10	30.00
High	5795	3.10	30.00

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

Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5755	0.68	0.68	30.00	-29.32
High	5795	1.52	1.52	30.00	-28.48

PSD,

