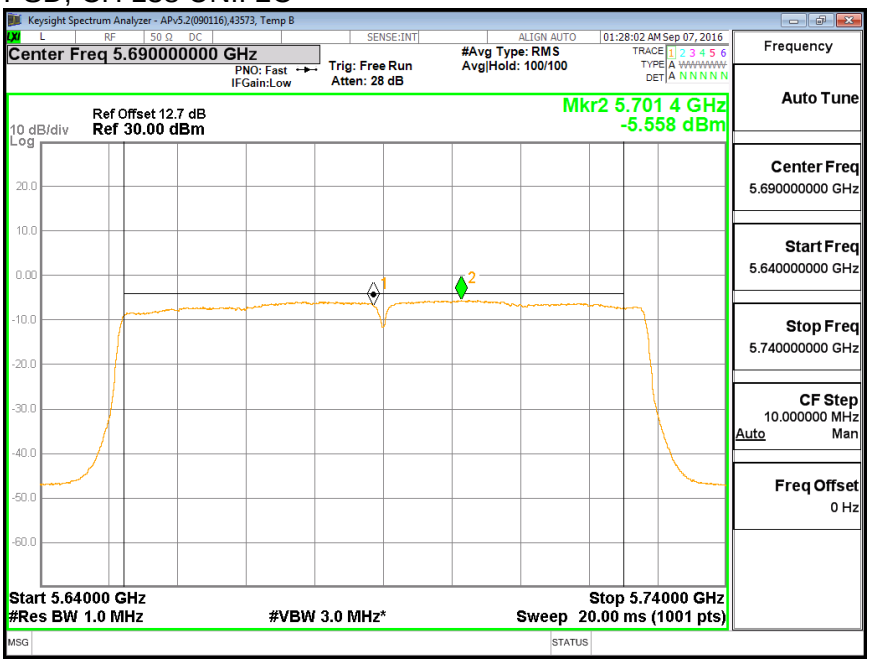
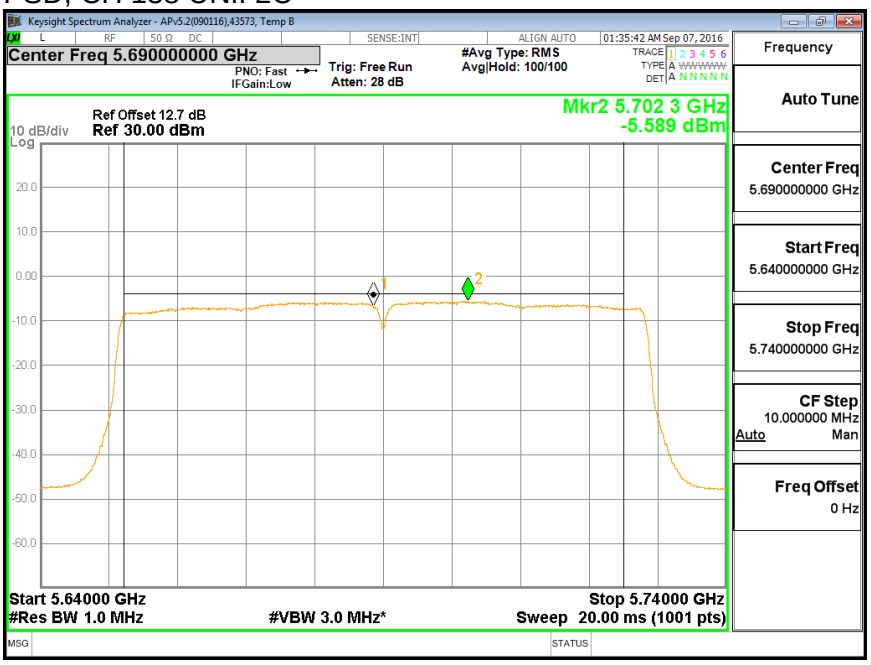
PSD, CHAIN 0

PSD, CH 138 UNII 2C



PSD, CHAIN 1

PSD, CH 138 UNII 2C



UNII-3 BAND

Antenna Gain and Limit

Channel	Frequency (MHz)	Min 99% BW (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	PSD Limit (dBm)
138	5690	2.81	10.19	10.19	25.81	25.81

Duty Cycle CF (dB)	0.33	Included in Calculations of Corr'd Power & PSD

Output Power Results

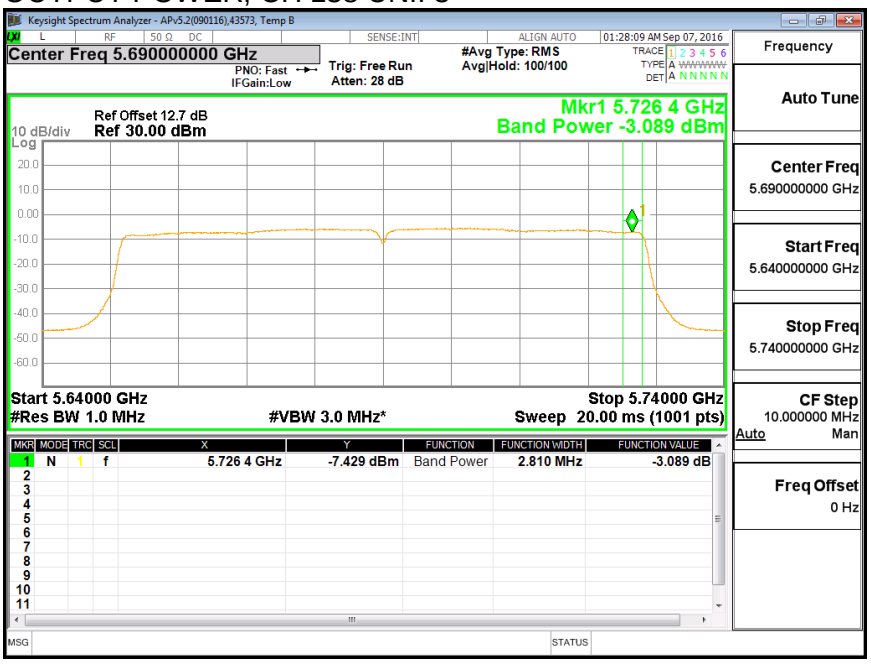
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
138	5690	-3.09	-3.14	0.22	25.81	-25.59

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	-9.85	-9.86	-6.51	25.81	-32.32

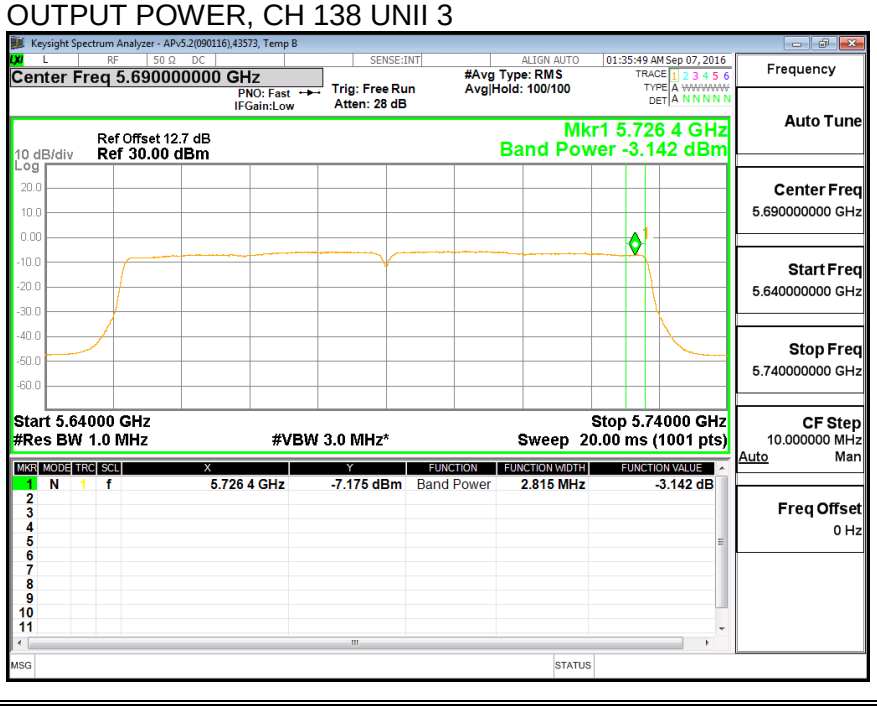
OUTPUT POWER, CHAIN 0

OUTPUT POWER, CH 138 UNII 3



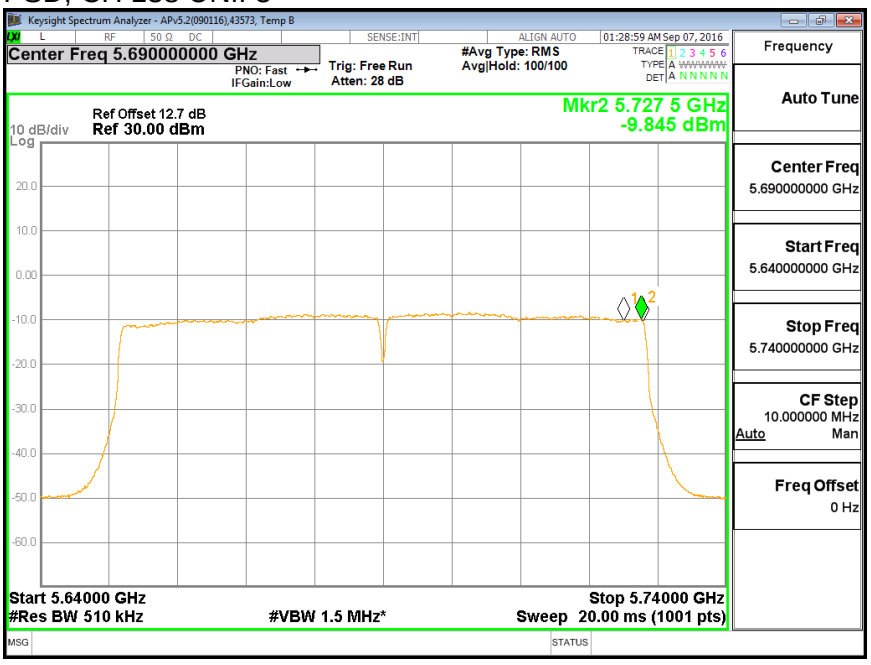
OUTPUT POWER, CHAIN 1

OUTPUT POWER, CH 138 UNII 3



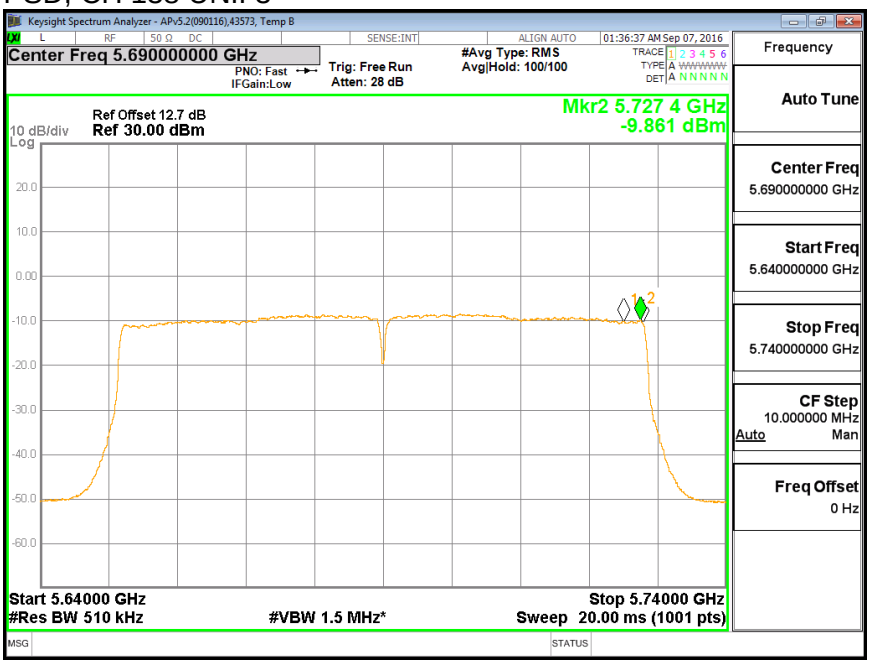
PSD, CHAIN 0

PSD, CH 138 UNII 3



PSD, CHAIN 1

PSD, CH 138 UNII 3



8.66.7. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

IC RSS-247 (6.2.4) (1)

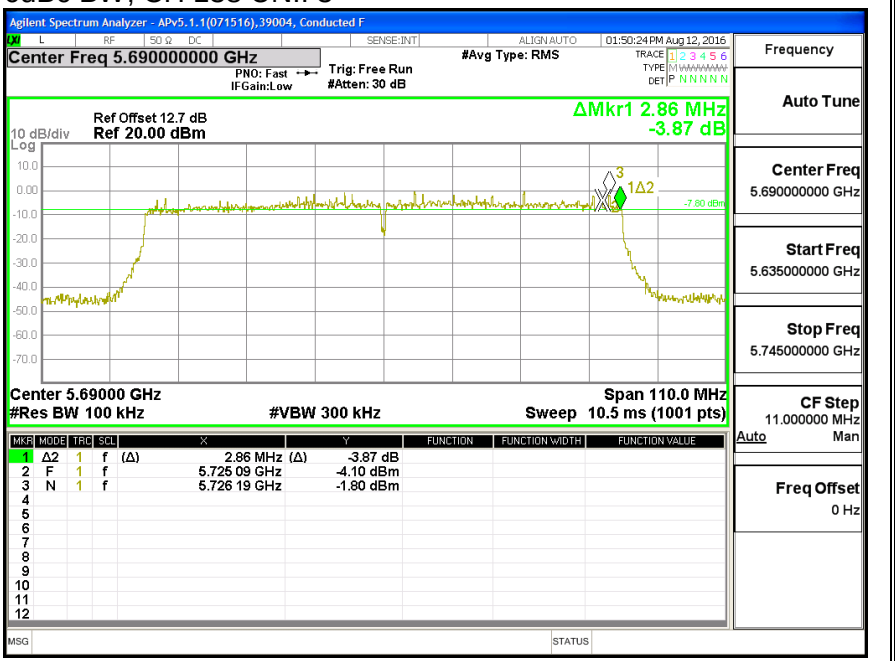
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)
High	5690	2.86	3.28

CHAIN 0

6dBc BW, CH 138 UNII 3



CHAIN 1

6dBc BW, CH 138 UNII 3

8.67. 802.11n HT20 CHAIN 0 MODE IN THE 5.8 GHz BAND

8.67.1. 6 dB BANDWIDTH

LIMITS

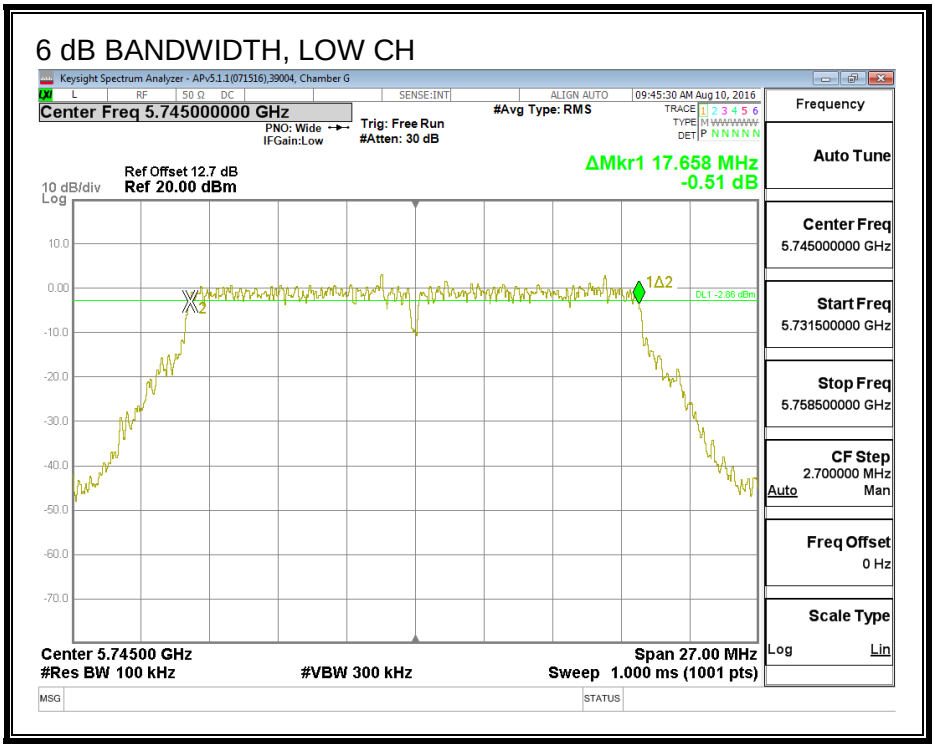
FCC §15.407 (e)

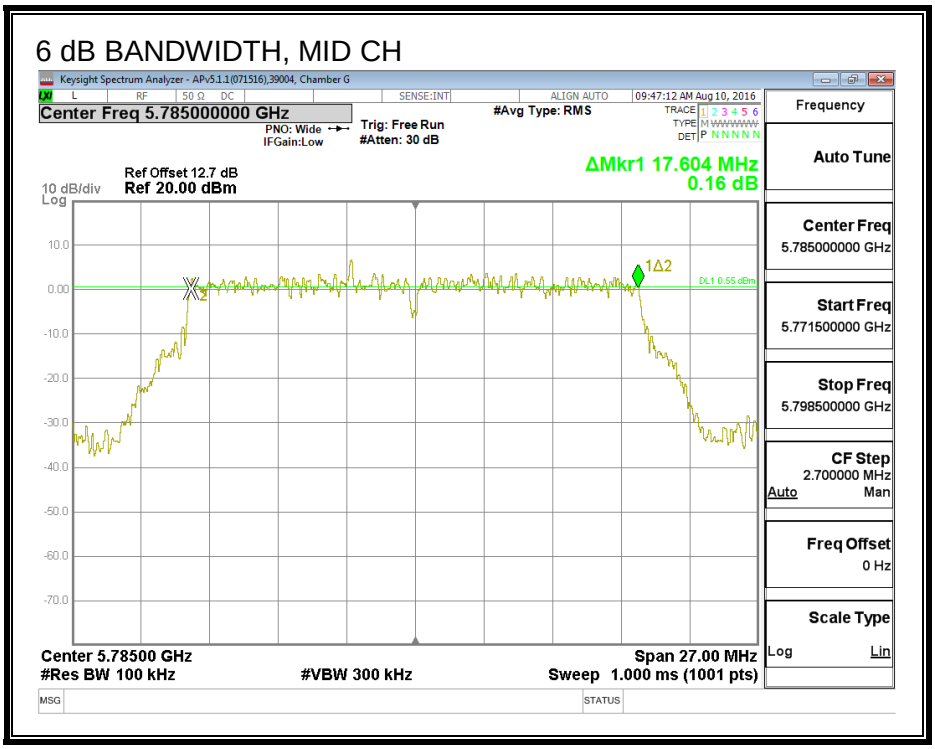
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

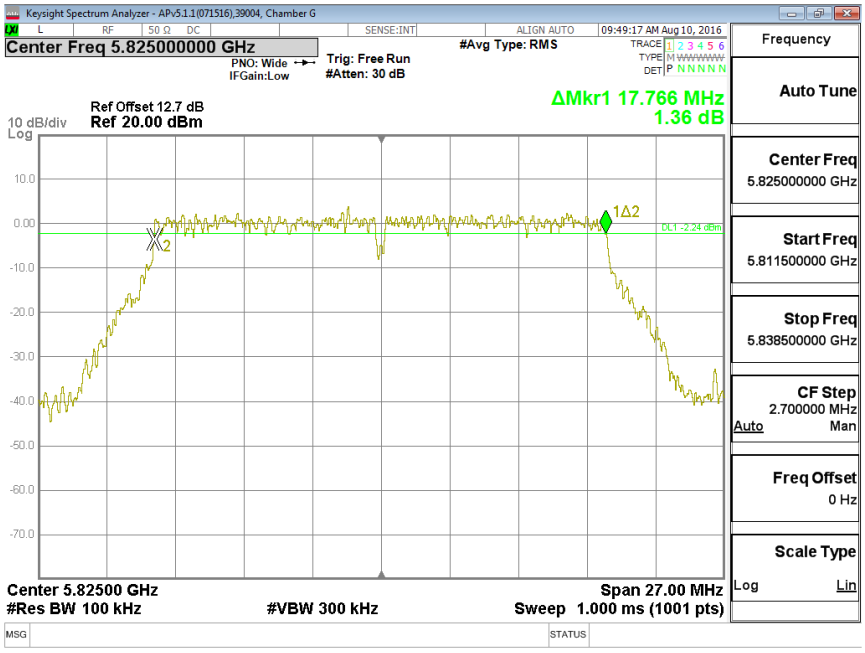
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.66	0.5
Mid	5785	17.60	0.5
High	5825	17.77	0.5

6 dB BANDWIDTH





6 dB BANDWIDTH, HIGH CH



8.67.2. 26 dB BANDWIDTH

LIMITS

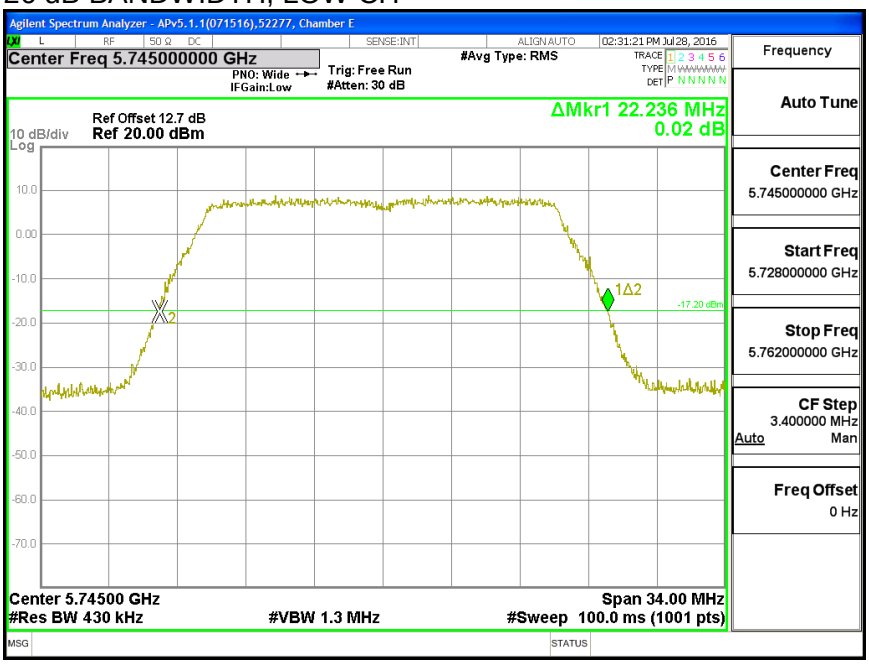
None, for reporting purposes only

RESULTS

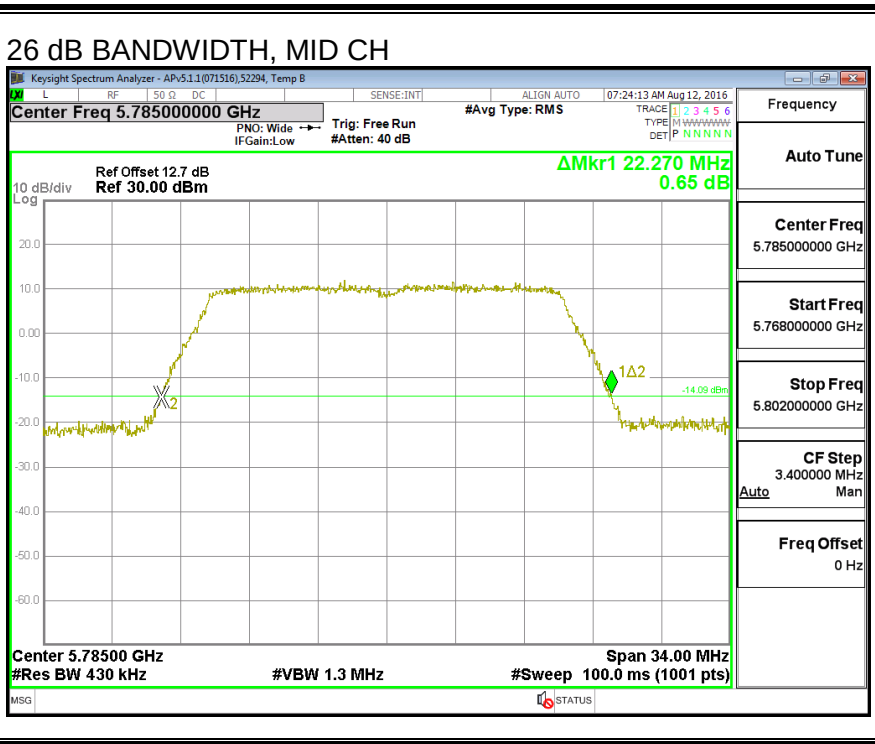
Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	22.24
Mid	5785	22.27
High	5825	22.24

26 dB BANDWIDTH

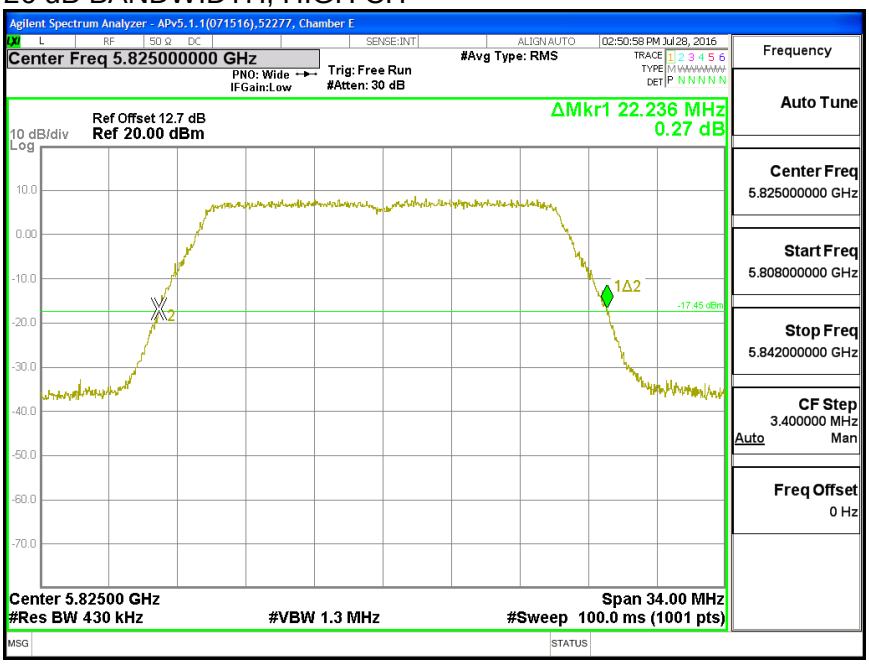
26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, MID CH



26 dB BANDWIDTH, HIGH CH



8.67.3. 99% BANDWIDTH

LIMITS

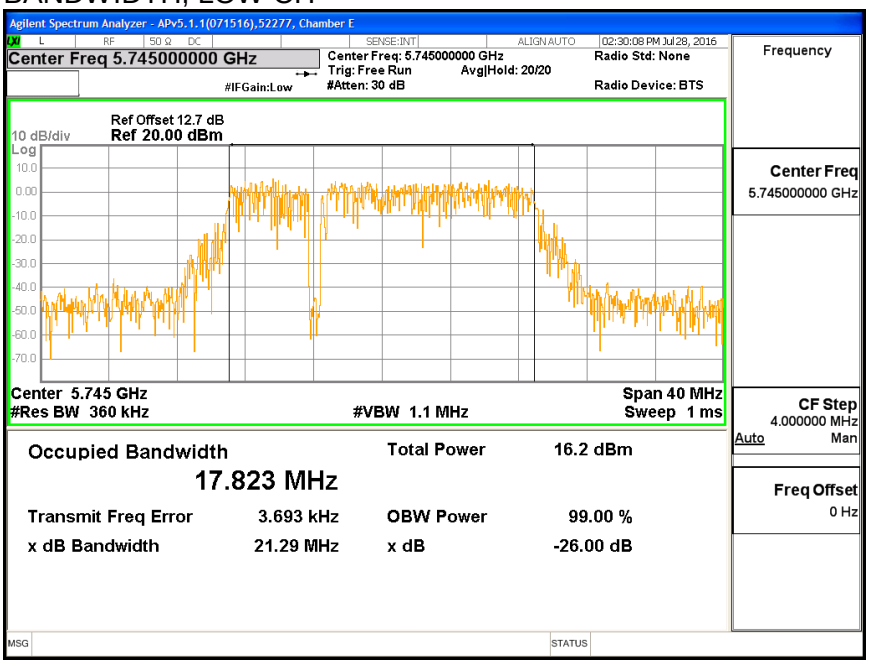
None; for reporting purposes only.

RESULTS

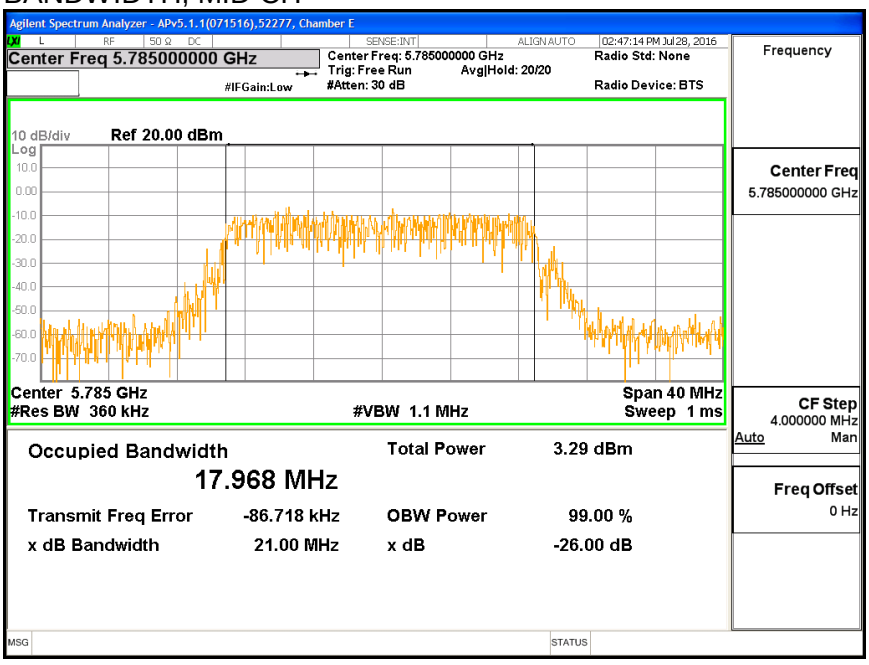
Frequency (MHz)	99% Bandwidth (MHz)
5745	17.823
5785	17.968
5825	17.731

99% BANDWIDTH

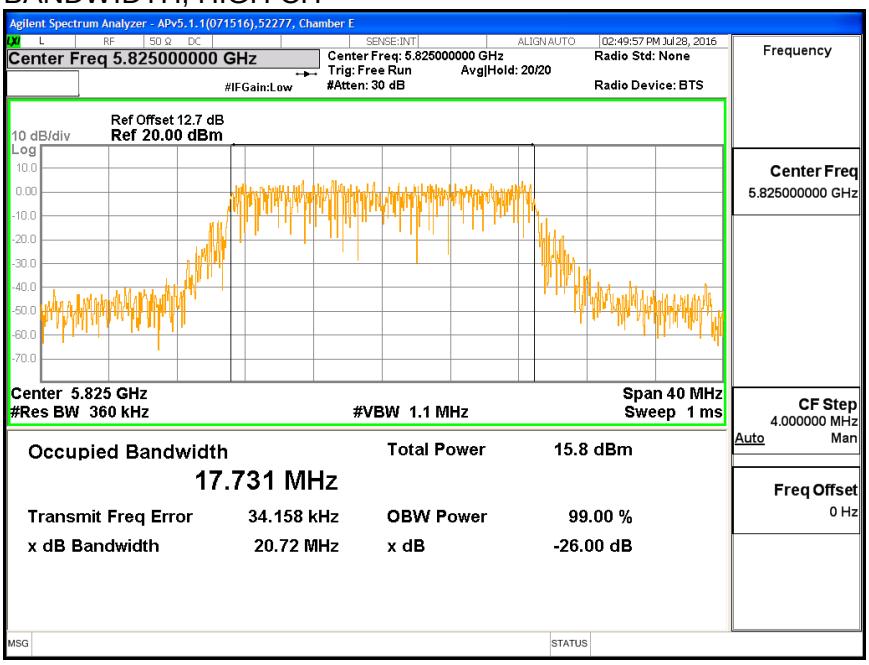
BANDWIDTH, LOW CH



BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



8.67.4. AVERAGE POWER (FCC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Power (dBm)
Low	5745	13.18
Mid	5785	13.22
High	5825	13.16

8.67.5. OUTPUT POWER (FCC)

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

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	5.80	30.00
Mid	5785	5.80	30.00
High	5825	5.80	30.00

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.18	13.18	30.00	-16.82
Mid	5785	13.22	13.22	30.00	-16.78
High	5825	13.16	13.16	30.00	-16.84

8.67.6. PSD (FCC)

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	5.80	30.00
Mid	5785	5.80	30.00
High	5825	5.80	30.00

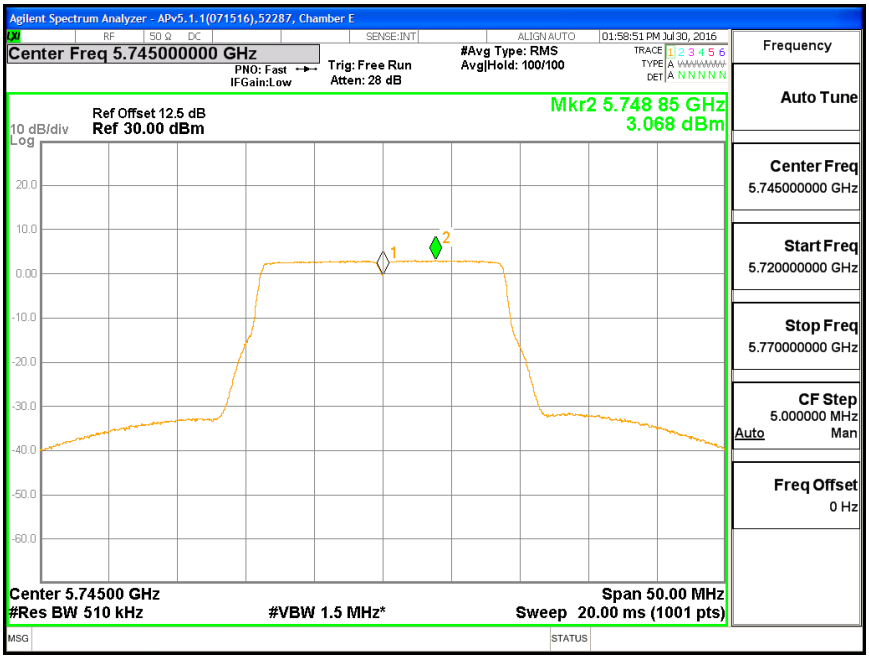
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

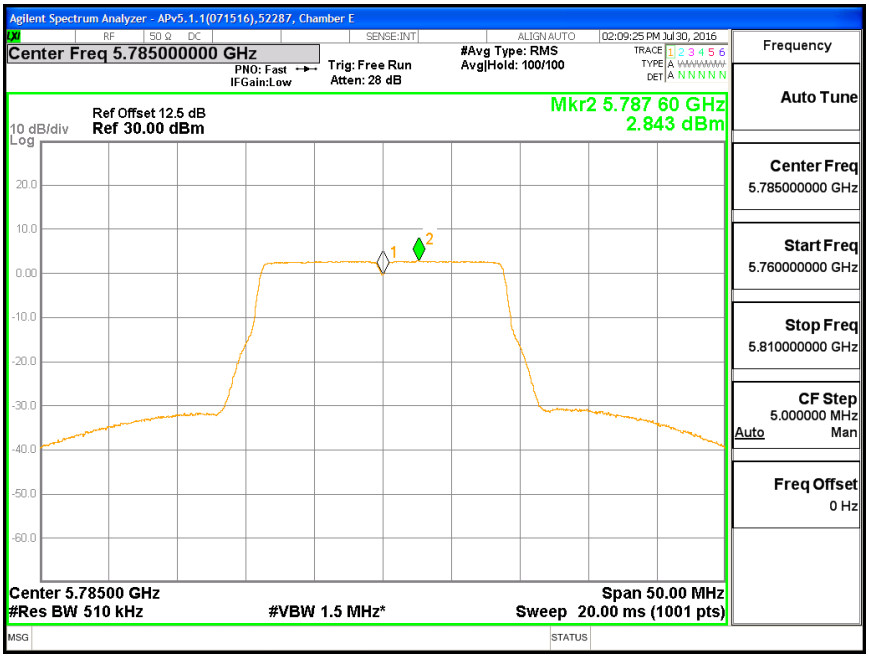
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.07	3.07	30.00	-26.93
Mid	5785	2.84	2.84	30.00	-27.16
High	5825	3.07	3.07	30.00	-26.93

PSD

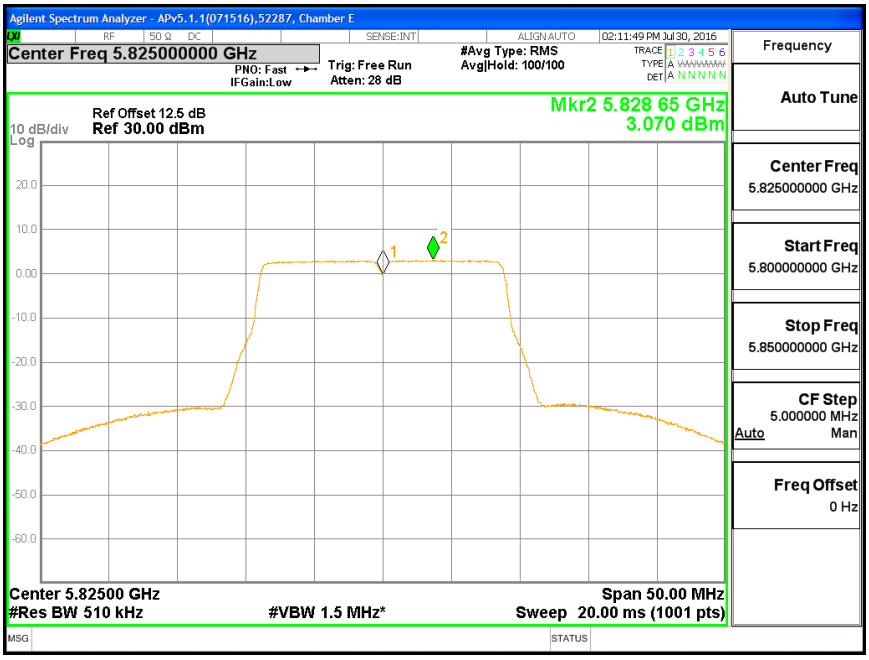
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER



PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER



8.67.7. AVERAGE POWER (IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Power (dBm)
Low	5745	13.20
Mid	5785	13.18
High	5825	13.15

8.67.8. OUTPUT POWER (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	5.80	30.00
Mid	5785	5.80	30.00
High	5825	5.80	30.00

Output Power Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.20	13.20	30.00	-16.80
Mid	5785	13.18	13.18	30.00	-16.82
High	5825	13.15	13.15	30.00	-16.85

8.67.9. PSD (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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	5.80	30.00
Mid	5785	5.80	30.00
High	5825	5.80	30.00

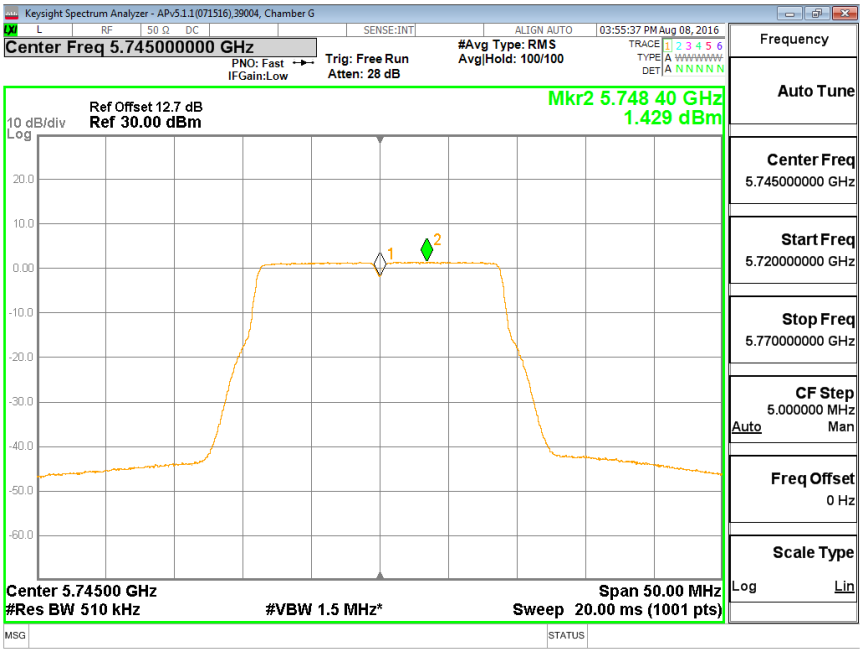
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

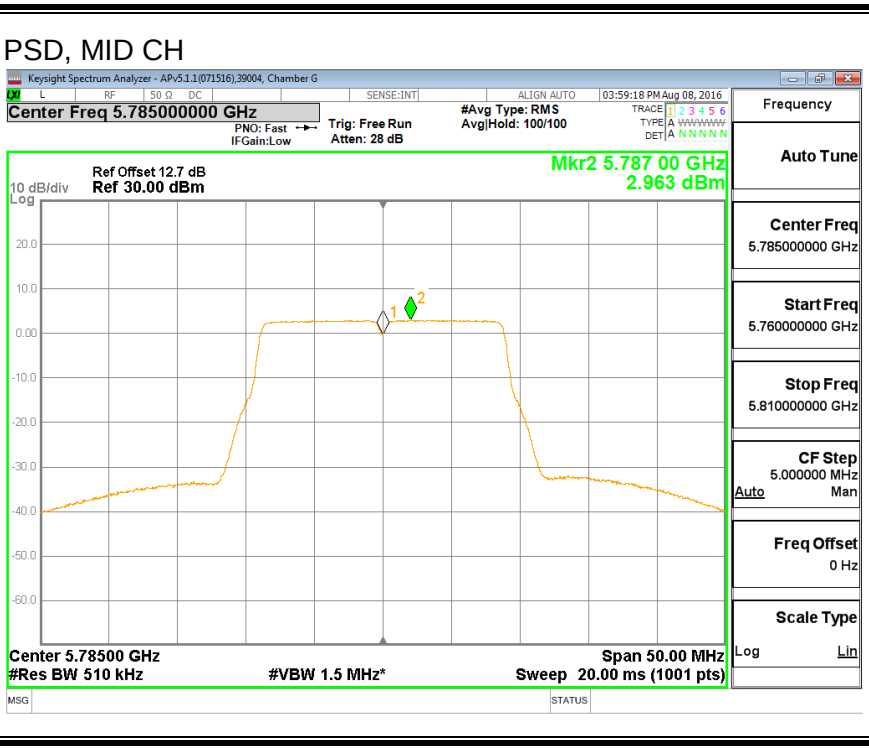
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	1.43	1.43	30.00	-28.57
Mid	5785	2.96	2.96	30.00	-27.04
High	5825	2.13	2.13	30.00	-27.87

PSD

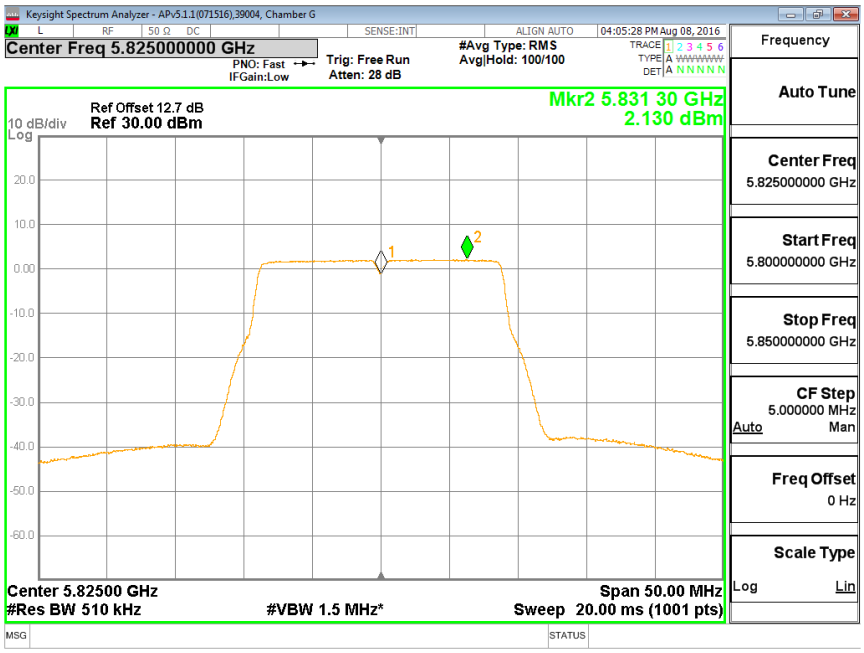
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.68. 802.11n HT20 CHAIN 1 MODE IN THE 5.8 GHz BAND

8.68.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

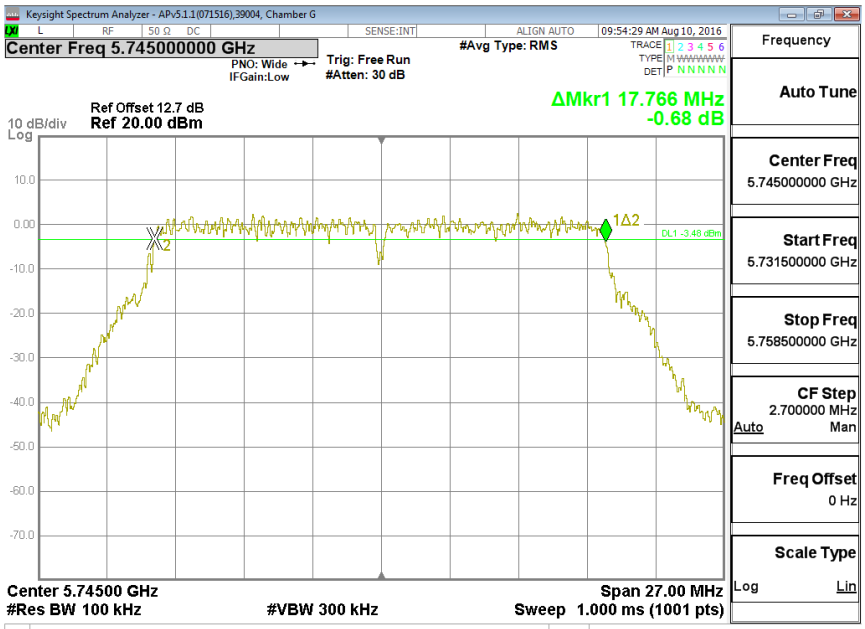
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

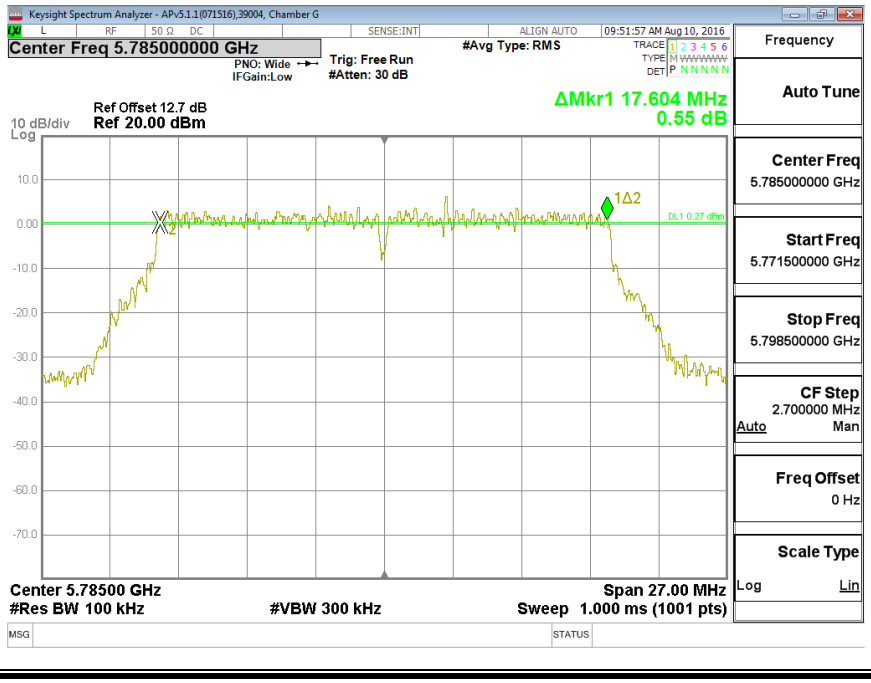
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	5745	17.77	0.5
Mid	5785	17.60	0.5
High	5825	17.60	0.5

6 dB BANDWIDTH

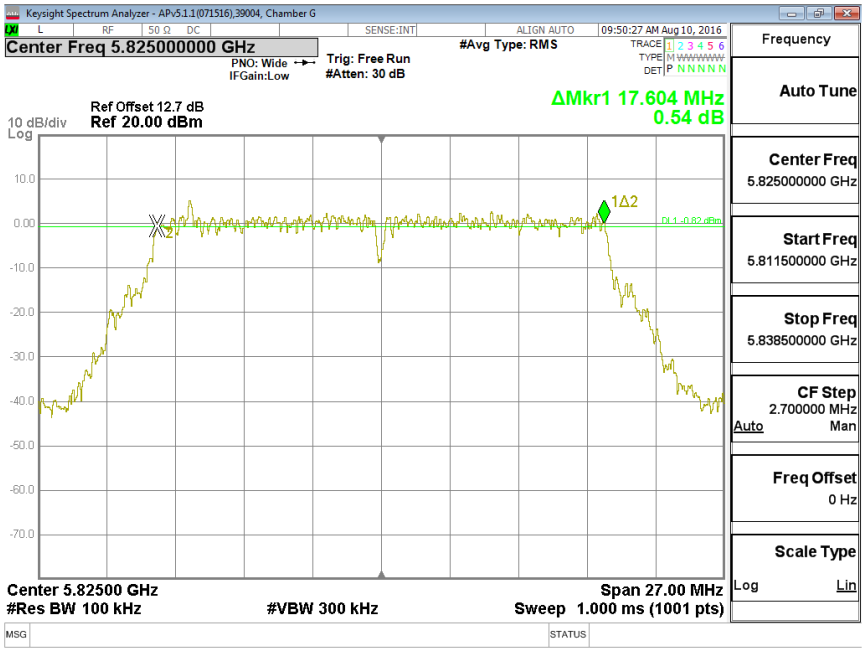
6 dB BANDWIDTH, LOW CH



6 dB BANDWIDTH, MID CH



6 dB BANDWIDTH, HIGH CH



8.68.2. 26 dB BANDWIDTH

LIMITS

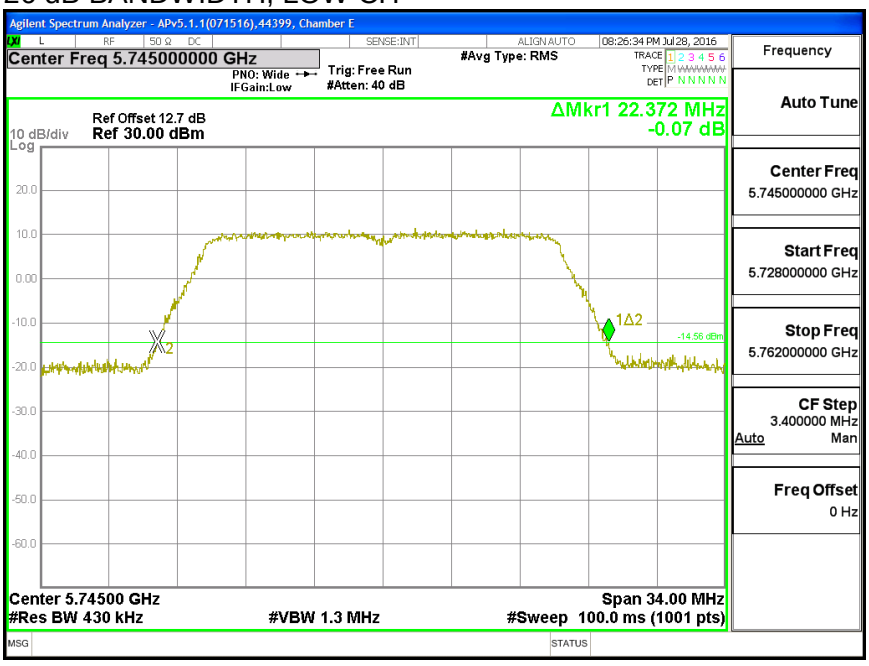
None, for reporting purposes only

RESULTS

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)
Low	5745	22.37
Mid	5785	22.37
High	5825	22.34

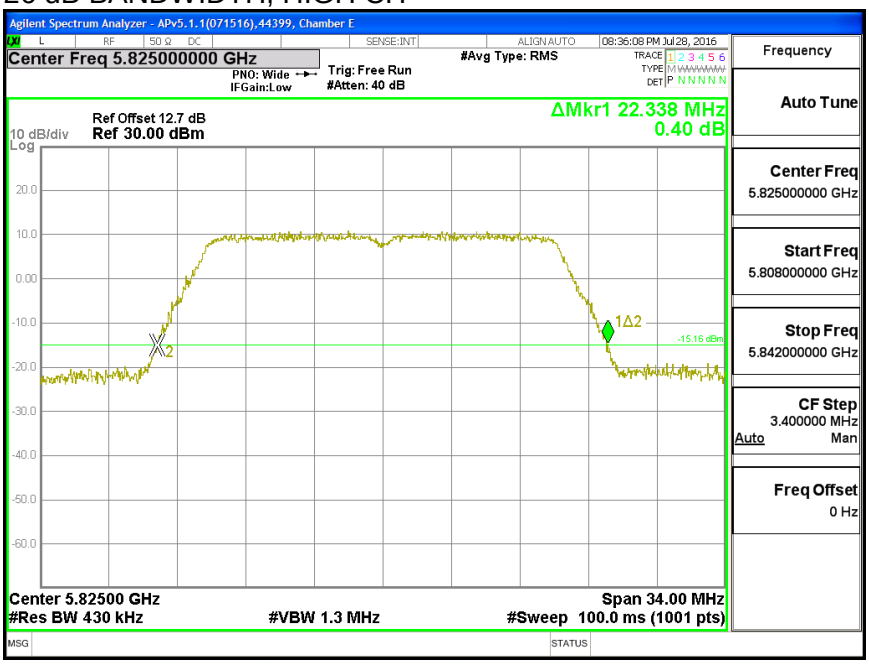
26 dB BANDWIDTH

26 dB BANDWIDTH, LOW CH



26 dB BANDWIDTH, MID CH

26 dB BANDWIDTH, HIGH CH



8.68.3. 99% BANDWIDTH

LIMITS

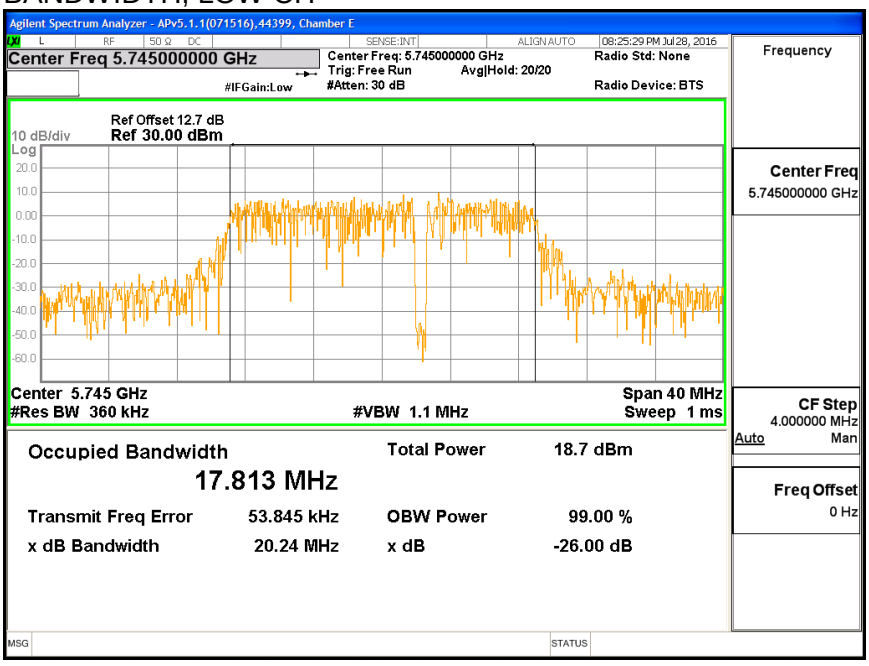
None; for reporting purposes only.

RESULTS

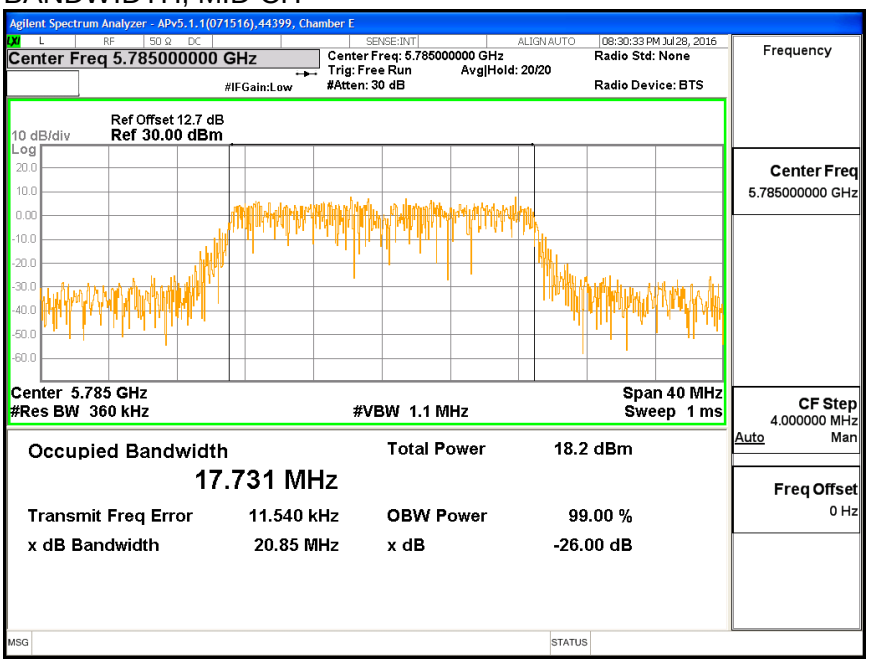
Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	5745	17.813
Mid	5785	17.731
High	5825	17.905

99% BANDWIDTH

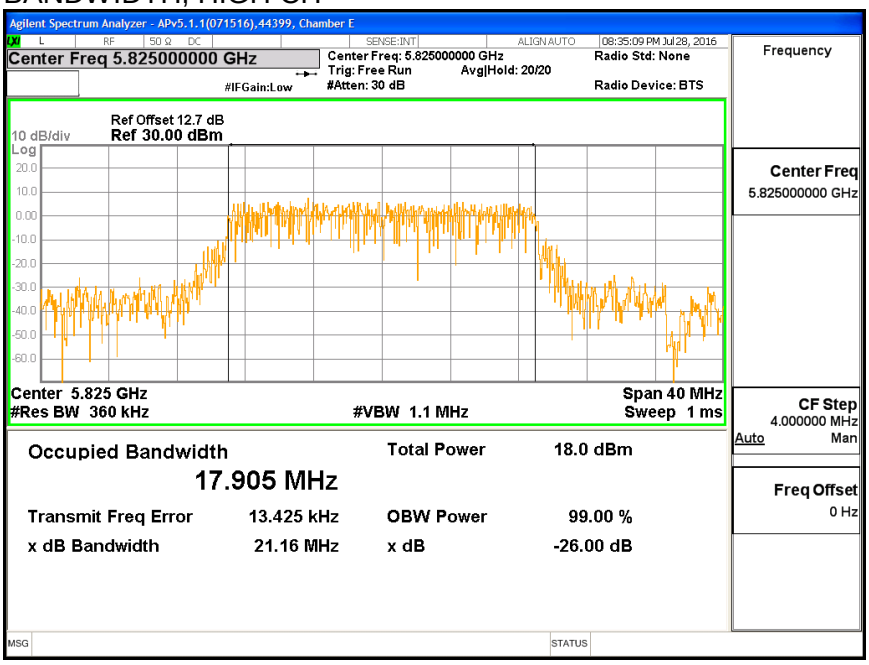
BANDWIDTH, LOW CH



BANDWIDTH, MID CH



BANDWIDTH, HIGH CH



8.68.4. AVERAGE POWER (FCC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Power (dBm)
Low	5745	13.20
Mid	5785	13.21
High	5825	13.15

8.68.5. OUTPUT POWER (FCC)

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

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	7.70	28.30
Mid	5785	7.70	28.30
High	5825	7.70	28.30

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.20	13.20	28.30	-15.10
Mid	5785	13.21	13.21	28.30	-15.09
High	5825	13.15	13.15	28.30	-15.15

8.68.6. PSD (FCC)

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	7.70	28.30
Mid	5785	7.70	28.30
High	5825	7.70	28.30

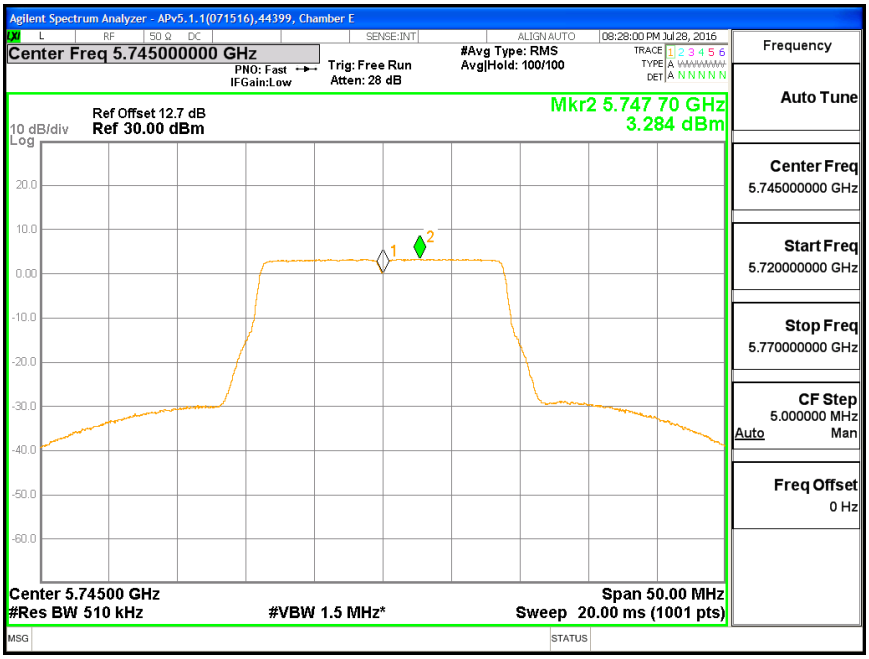
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

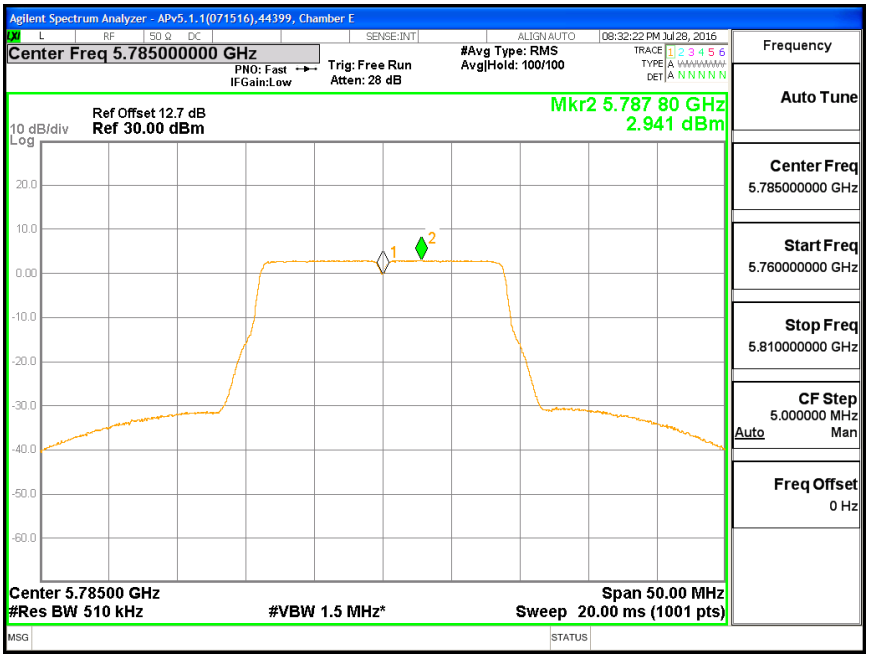
Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.28	3.28	28.30	-25.02
Mid	5785	2.94	2.94	28.30	-25.36
High	5825	2.91	2.91	28.30	-25.39

PSD

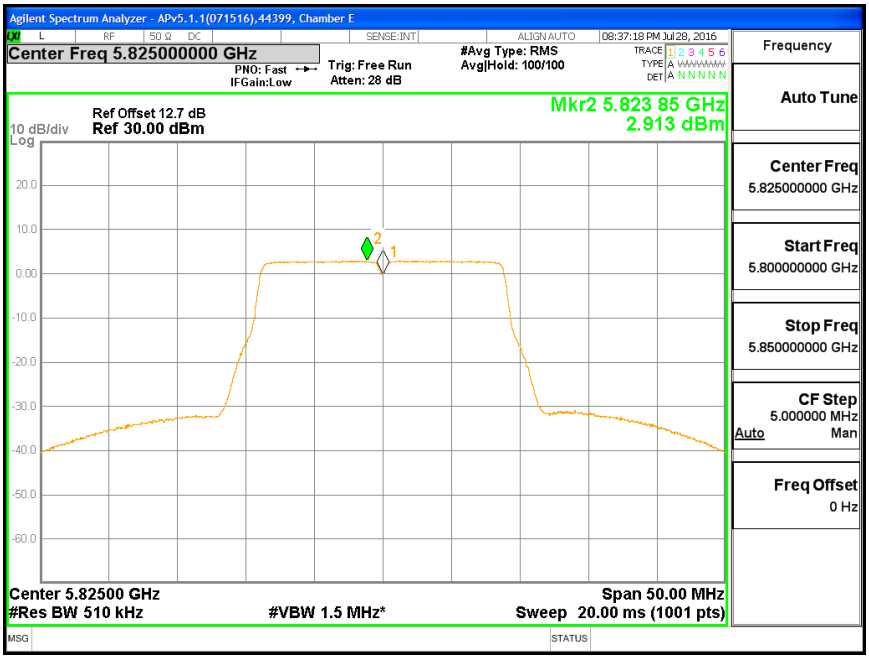
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER



PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER



8.68.1. AVERAGE POWER (IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Power (dBm)
Low	5745	13.22
Mid	5785	13.19
High	5825	13.16

8.68.2. OUTPUT POWER (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	7.70	28.30
Mid	5785	7.70	28.30
High	5825	7.70	28.30

Output Power Results

Channel	Frequency (MHz)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	13.22	13.22	28.30	-15.08
Mid	5785	13.19	13.19	28.30	-15.11
High	5825	13.16	13.16	28.30	-15.14

8.68.3. PSD (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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	7.70	28.30
Mid	5785	7.70	28.30
High	5825	7.70	28.30

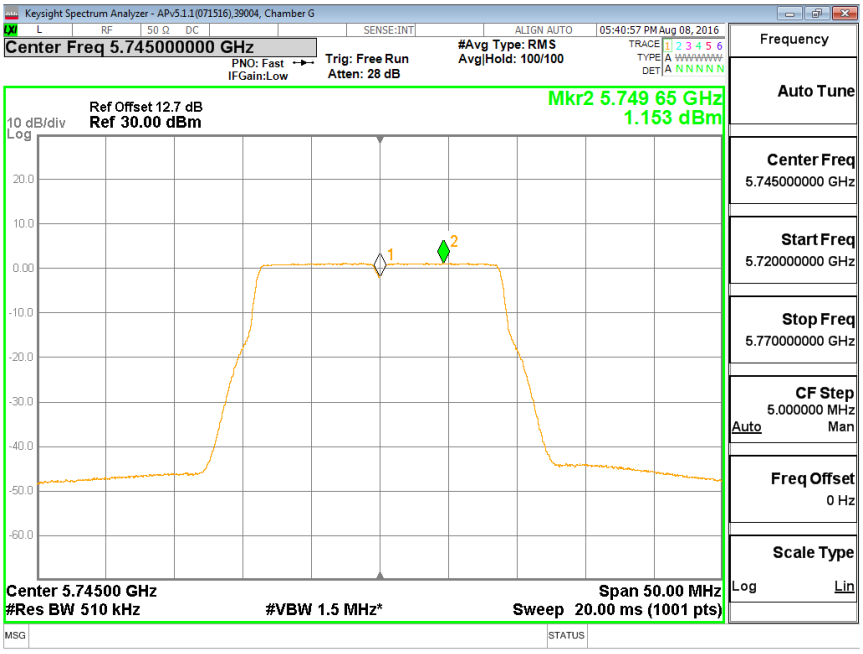
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

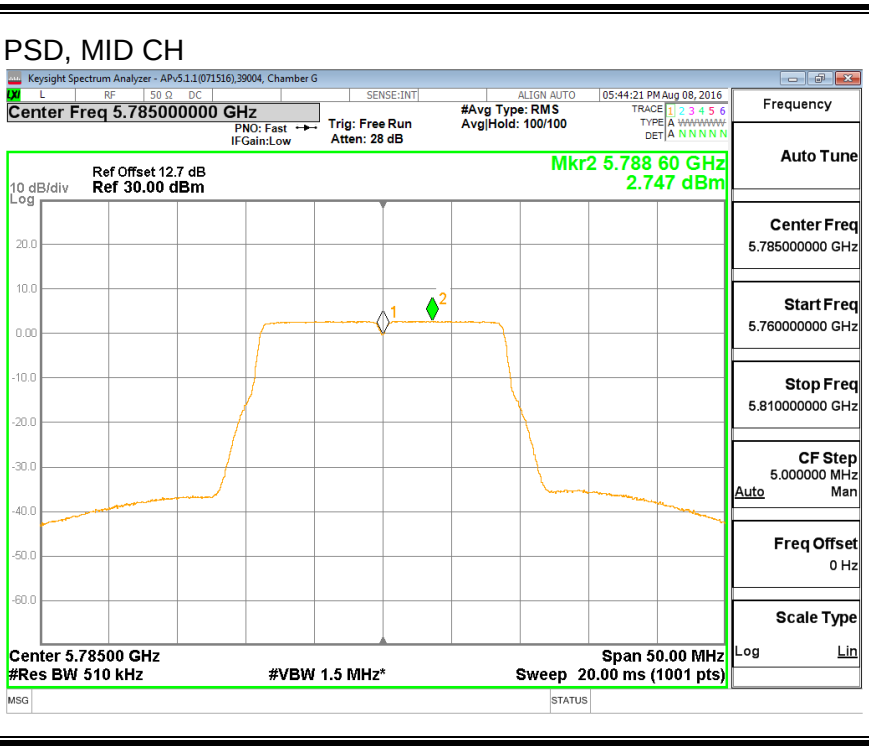
Channel	Frequency (MHz)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	1.15	1.15	28.30	-27.15
Mid	5785	2.75	2.75	28.30	-25.55
High	5825	2.31	2.31	28.30	-25.99

PSD

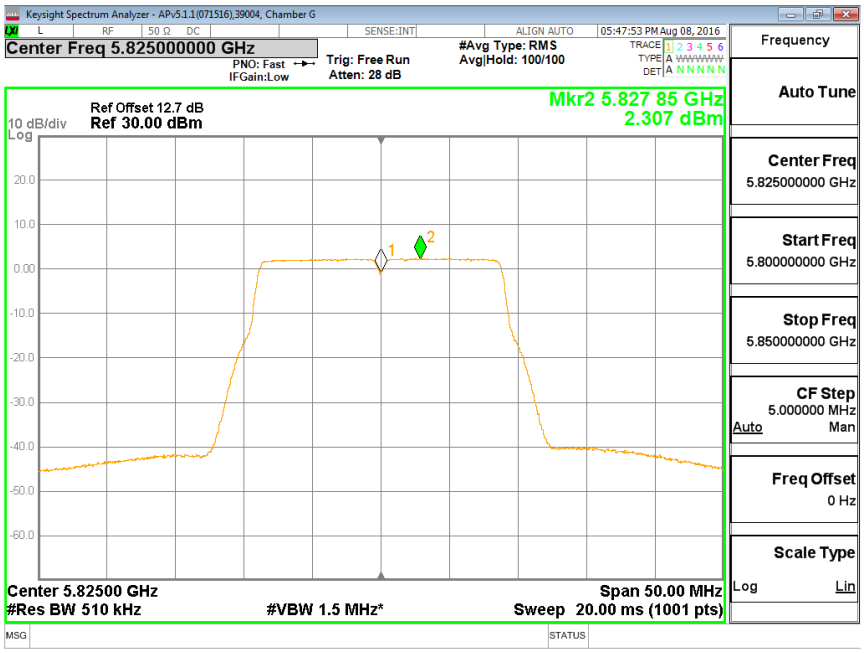
PSD, LOW CH



PSD, MID CH



PSD, HIGH CH



8.69. 802.11n HT20 2Tx CDD MODE IN THE 5.8 GHz BAND

8.69.1. 6 dB BANDWIDTH

LIMITS

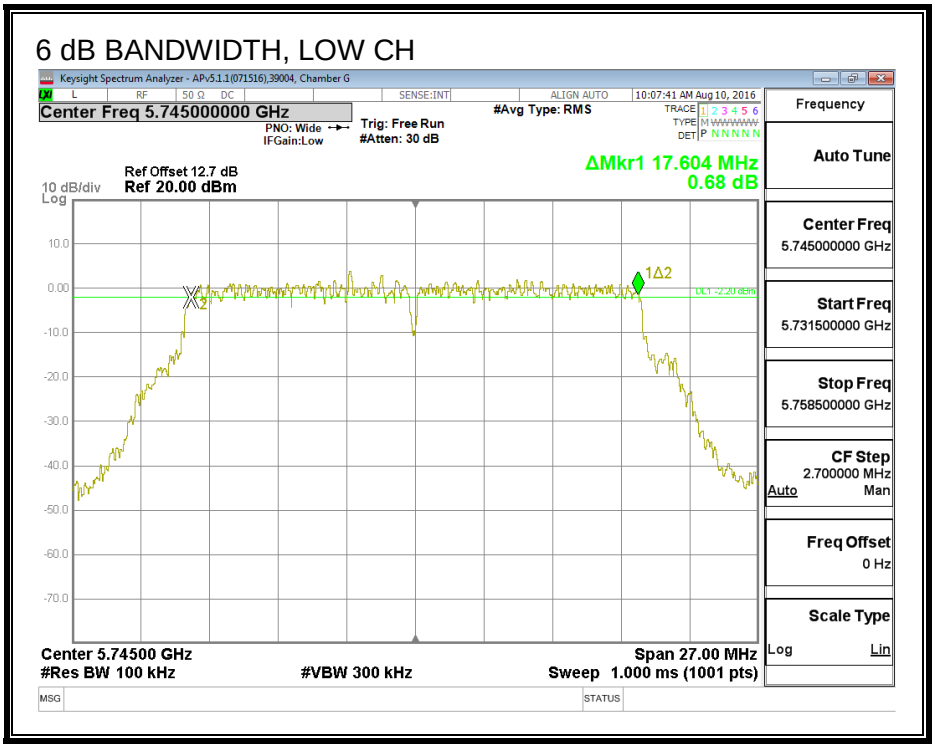
FCC §15.407 (e)

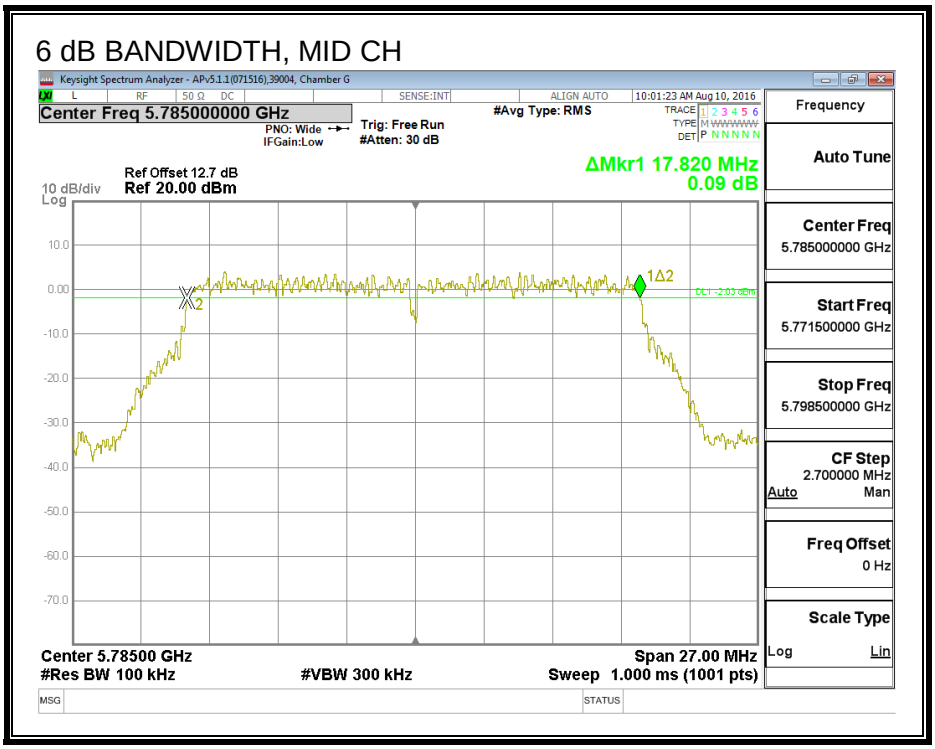
The minimum 6 dB bandwidth shall be at least 500 kHz.

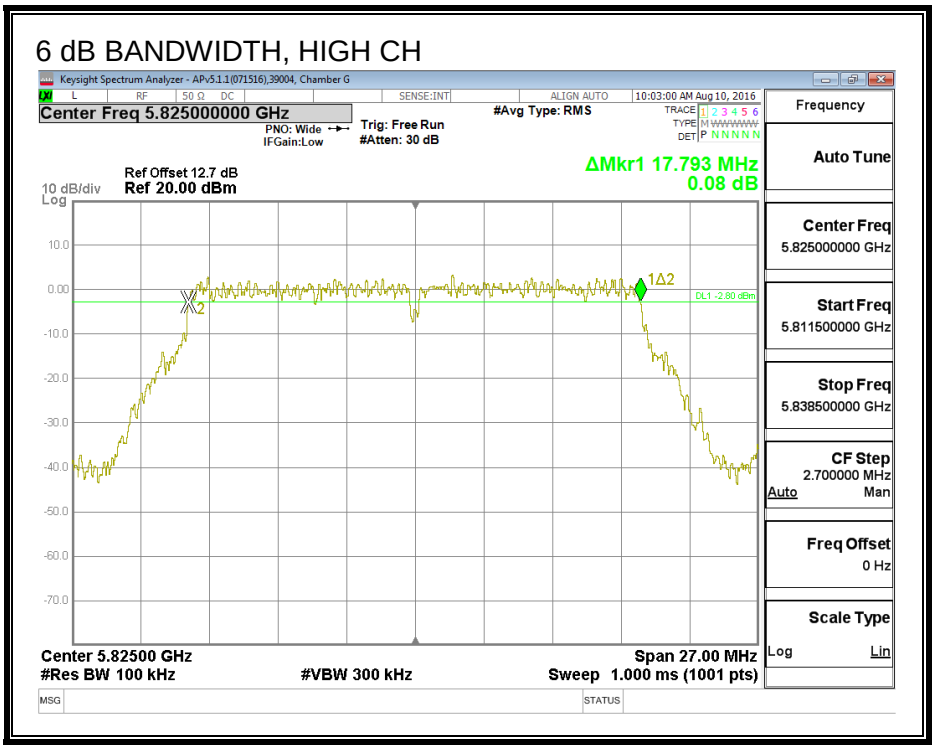
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.60	17.36	0.5
Mid	5785	17.82	17.55	0.5
High	5825	17.79	17.66	0.5

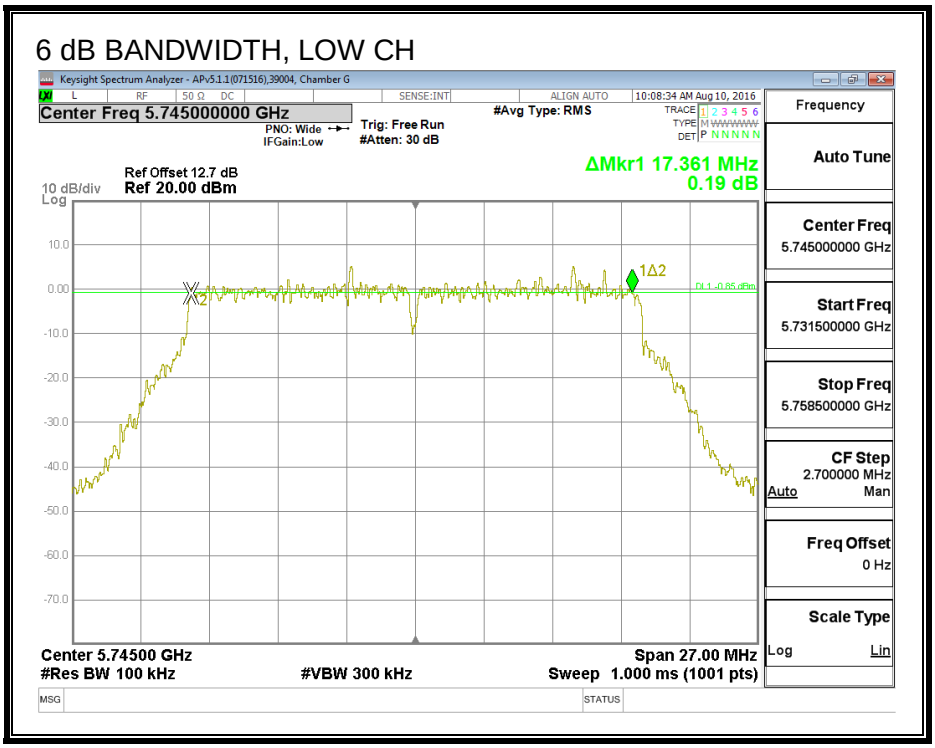
6 dB BANDWIDTH, CHAIN 0



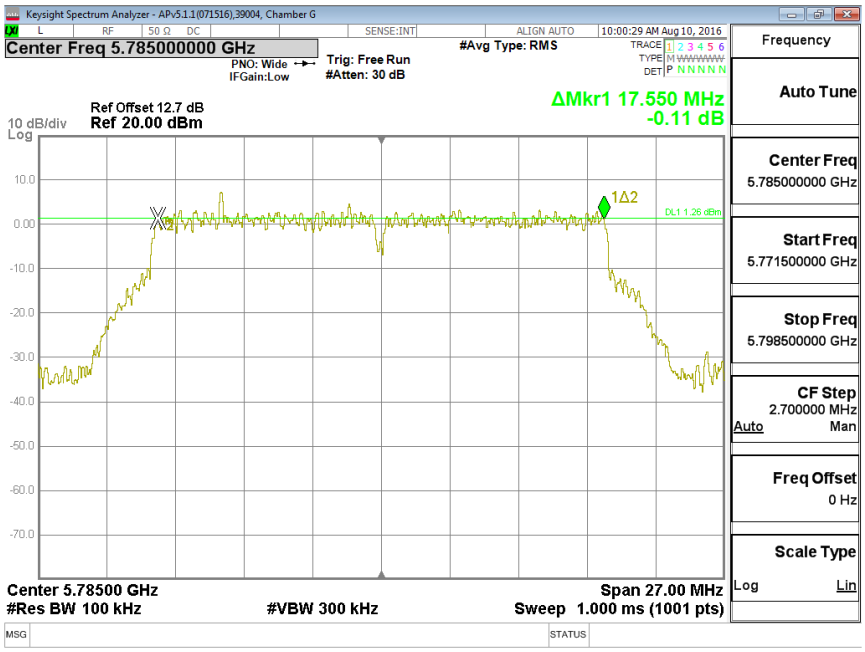




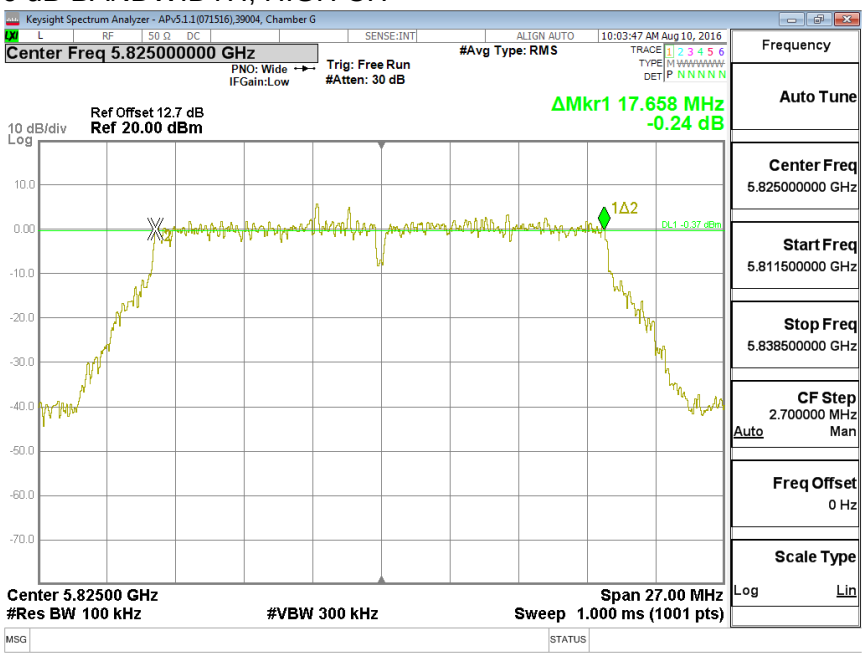
6 dB BANDWIDTH, CHAIN 1



6 dB BANDWIDTH, MID CH



6 dB BANDWIDTH, HIGH CH



8.69.2. 26 dB BANDWIDTH

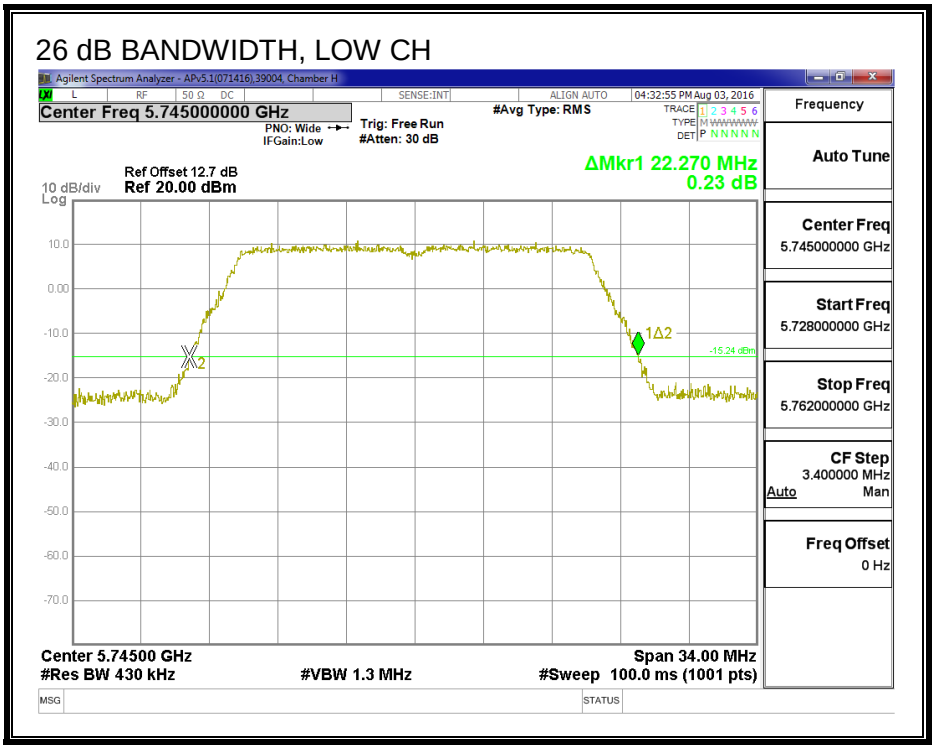
LIMITS

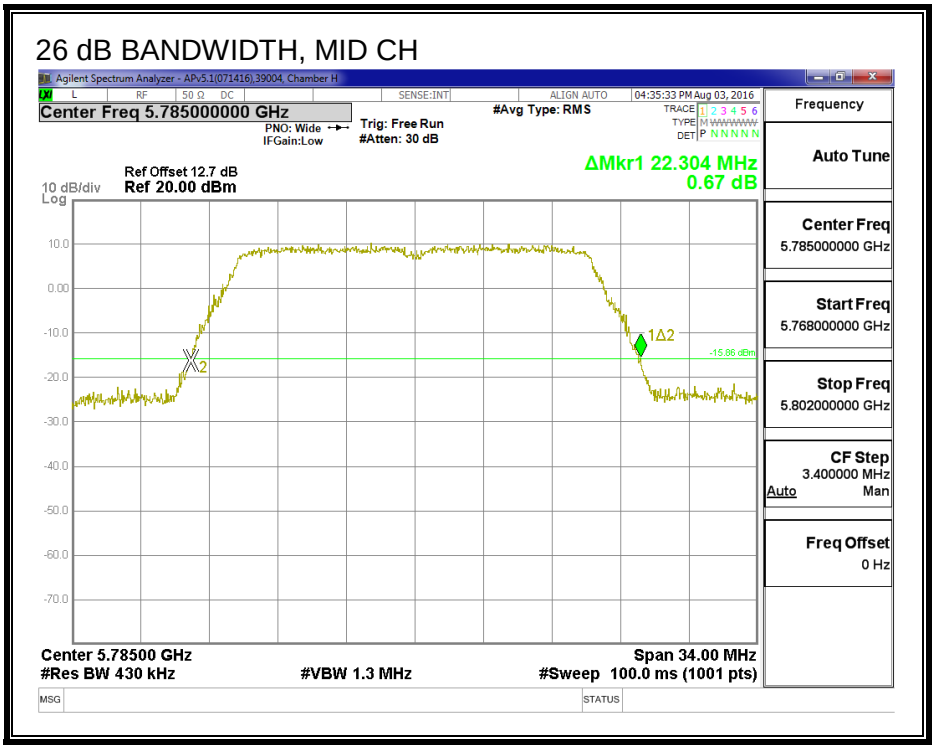
None, for reporting purposes only.

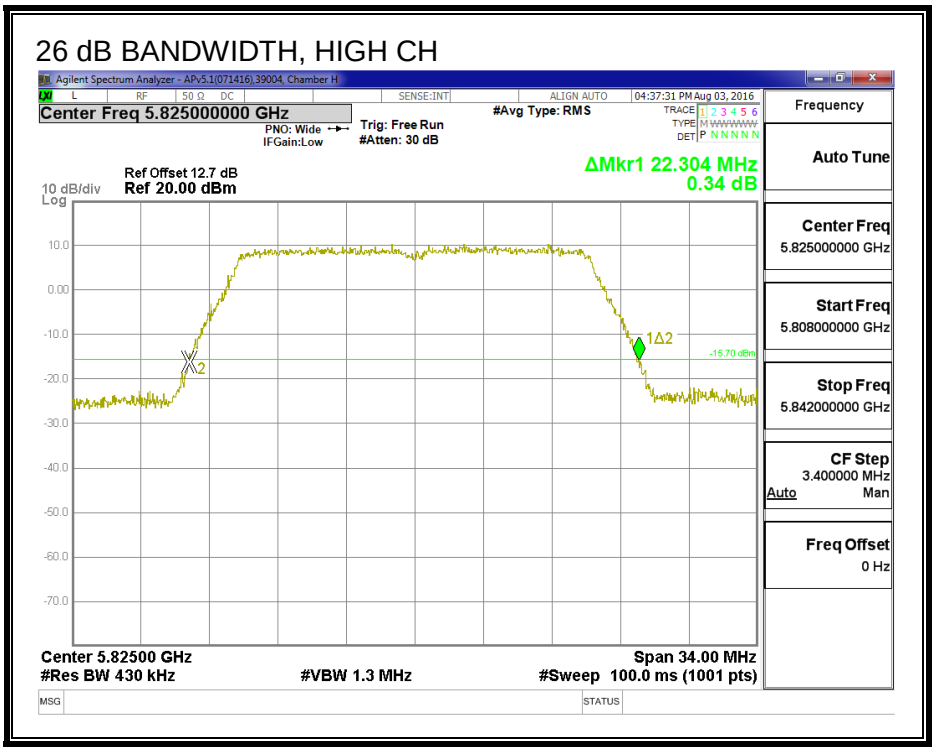
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	22.27	22.17
Mid	5785	22.30	22.13
High	5825	22.30	22.17

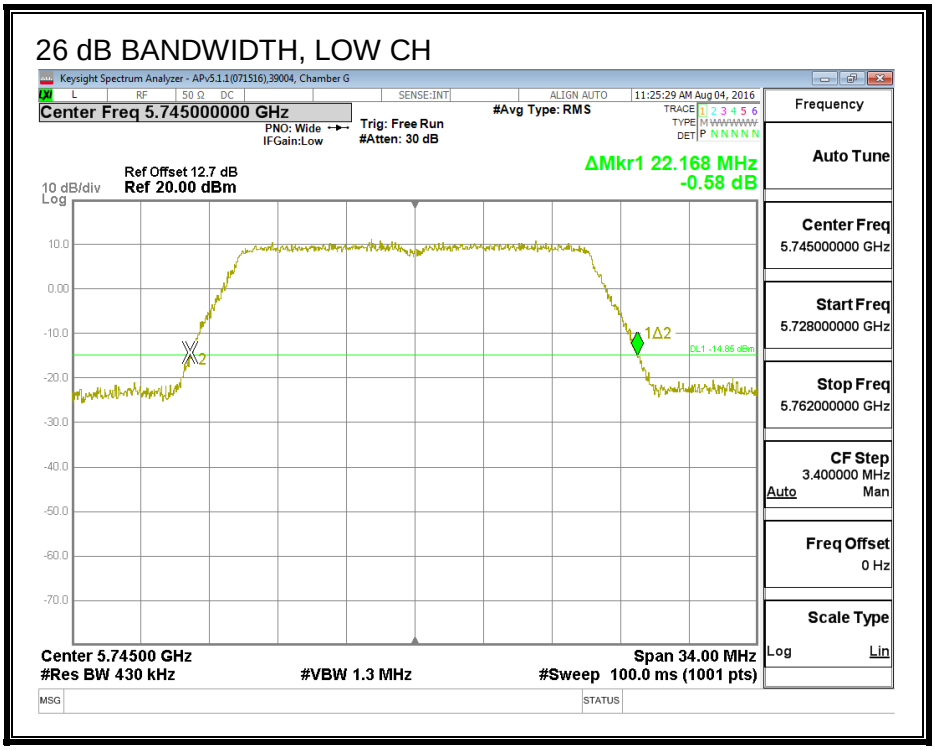
26 dB BANDWIDTH, CHAIN 0



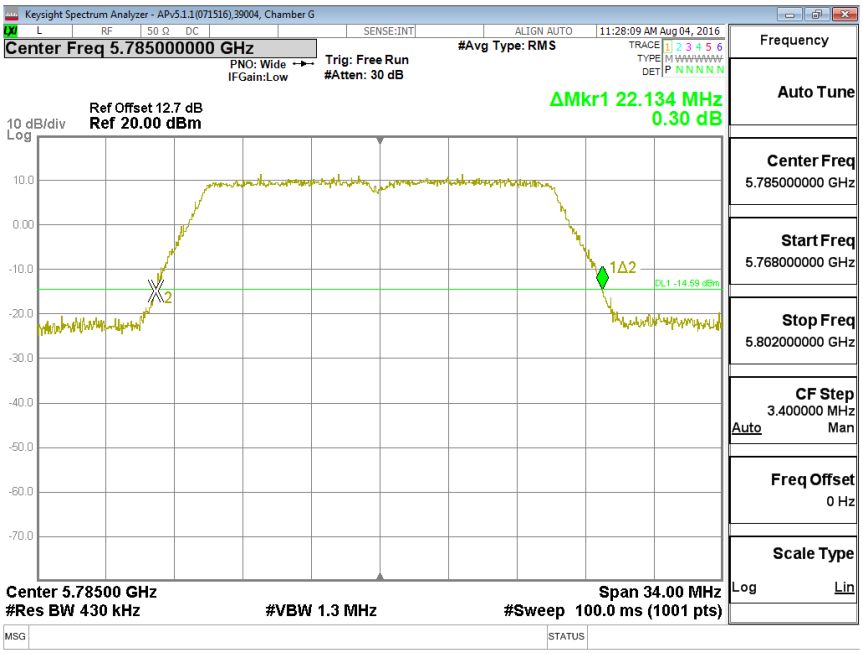




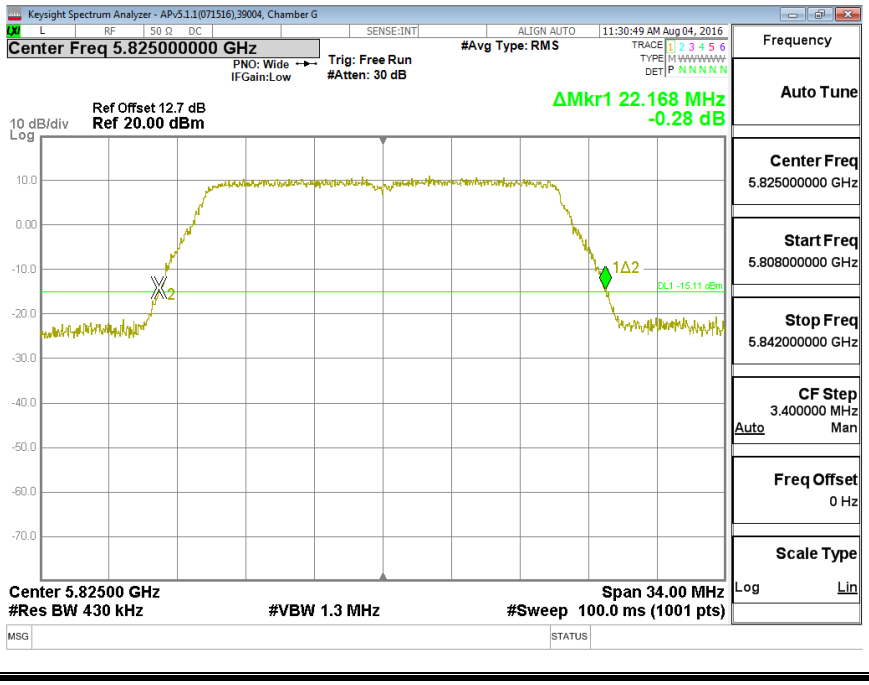
26 dB BANDWIDTH, CHAIN 1



26 dB BANDWIDTH, MID CH



26 dB BANDWIDTH, HIGH CH



8.69.3. 99% BANDWIDTH

LIMITS

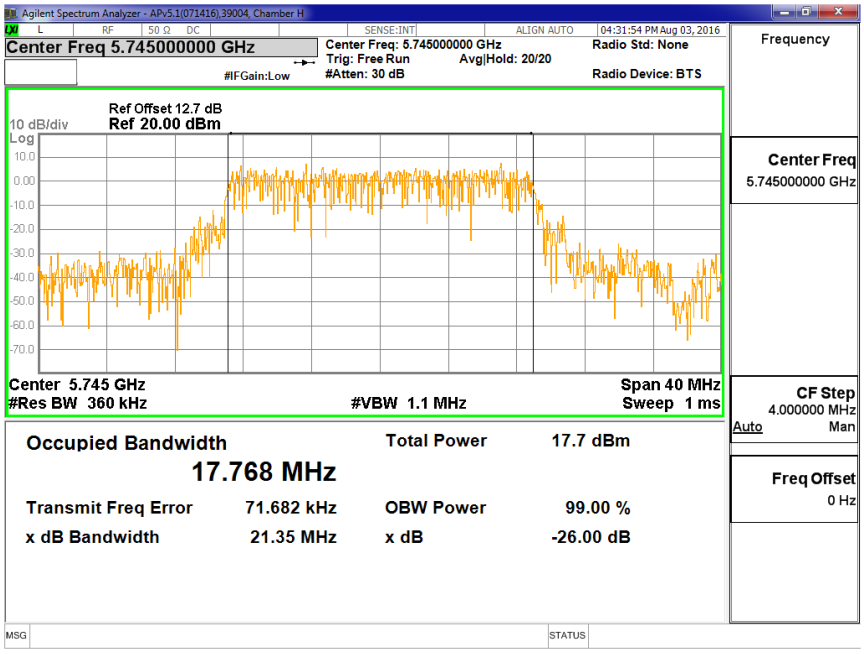
None; for reporting purposes only.

RESULTS

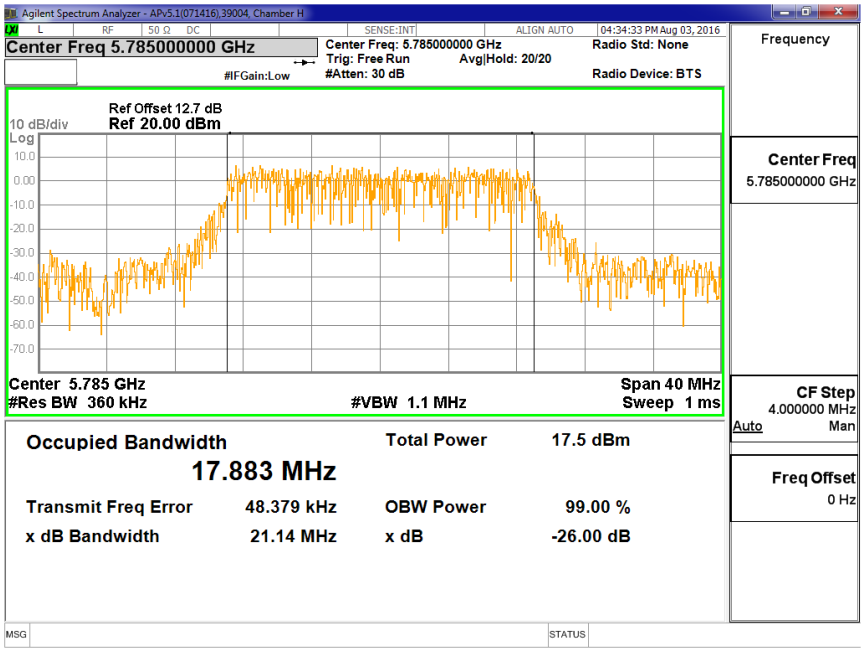
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.768	17.743
Mid	5785	17.883	17.967
High	5825	17.749	17.907

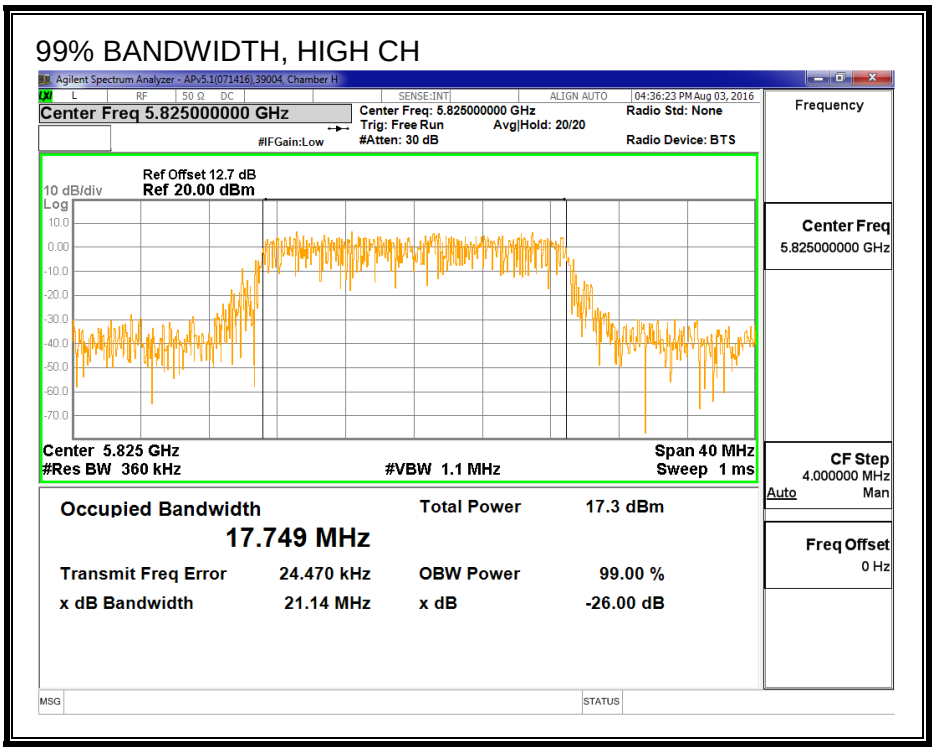
99% BANDWIDTH, CHAIN 0

99% BANDWIDTH, LOW CH

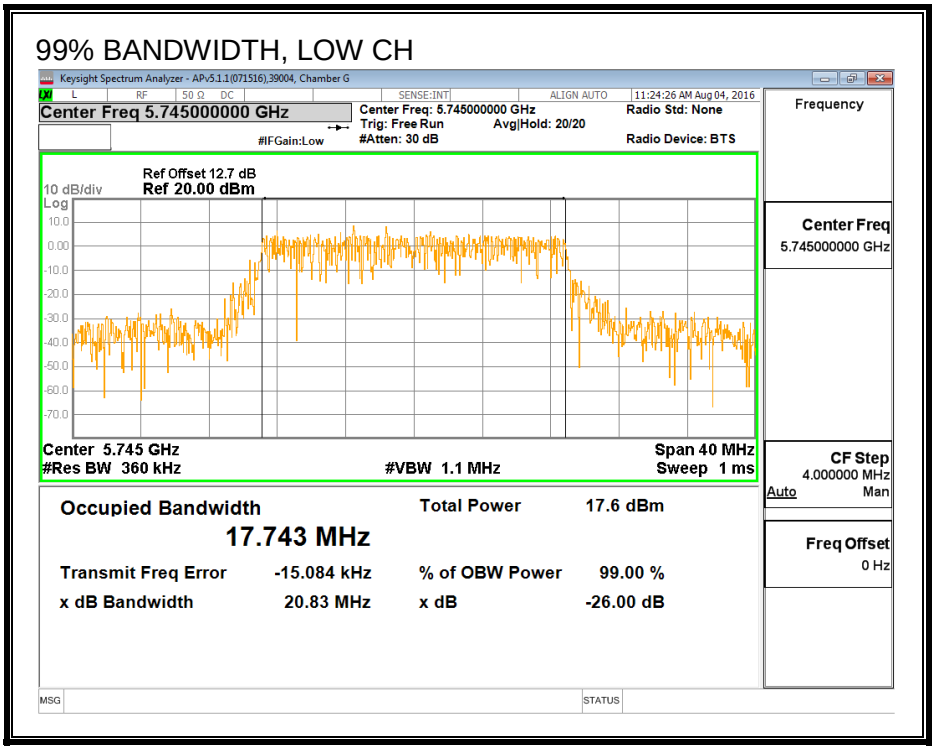


99% BANDWIDTH, MID CH

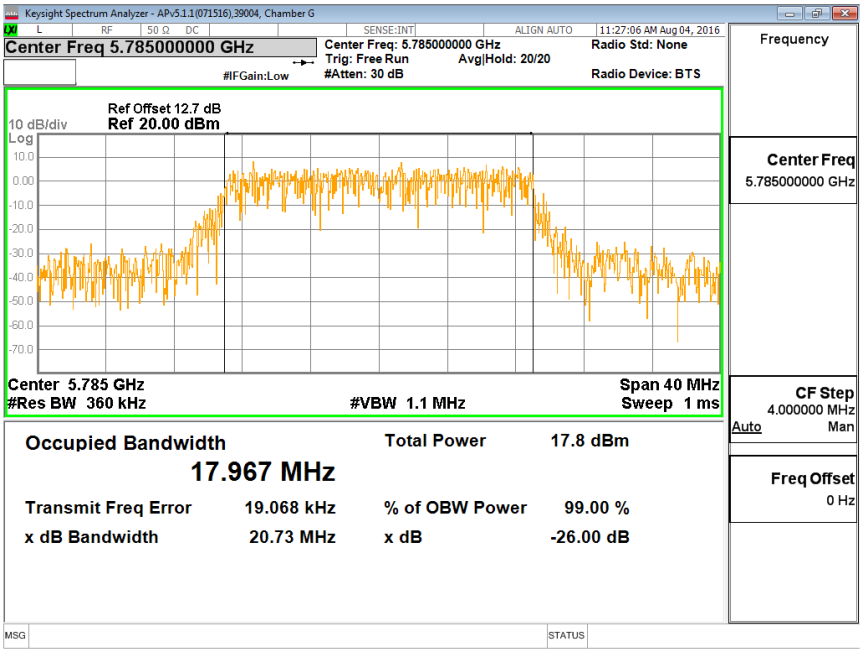




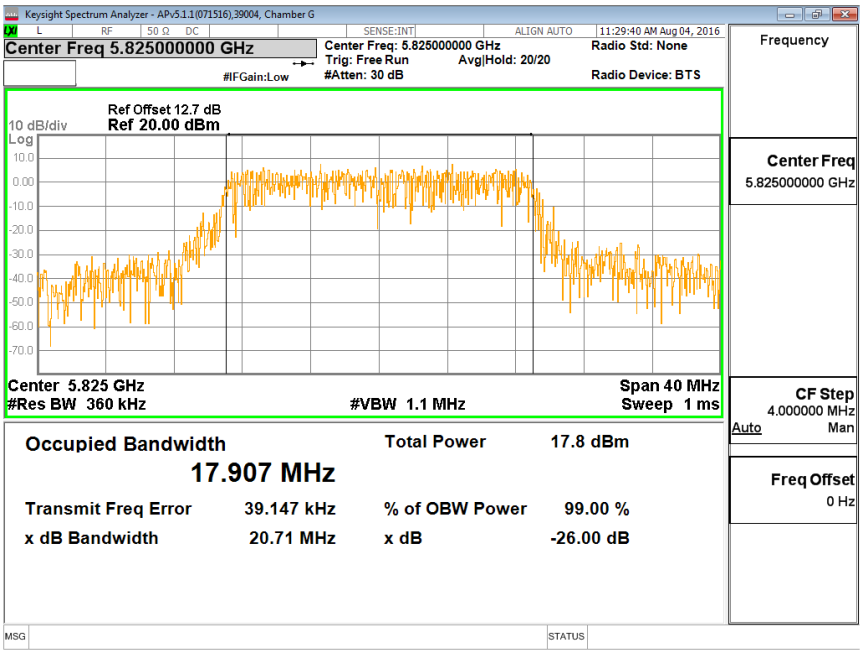
99% BANDWIDTH, CHAIN 1



99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



8.69.4. AVERAGE POWER (FCC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	13.16	13.20	16.19
Mid	5785	13.24	13.19	16.23
High	5825	13.20	13.23	16.23

8.69.5. OUTPUT POWER (FCC)

LIMITS

FCC §15.407 (a) (3)

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

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.80	7.70	6.85

RESULTS

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	6.85	29.15
Mid	5785	6.85	29.15
High	5825	6.85	29.15

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	13.16	13.20	16.19	29.15	-12.96
Mid	5785	13.24	13.19	16.23	29.15	-12.92
High	5825	13.20	13.23	16.23	29.15	-12.92

8.69.6. PSD (FCC)

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)
5.80	7.70	9.81

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	9.81	26.19
Mid	5785	9.81	26.19
High	5825	9.81	26.19

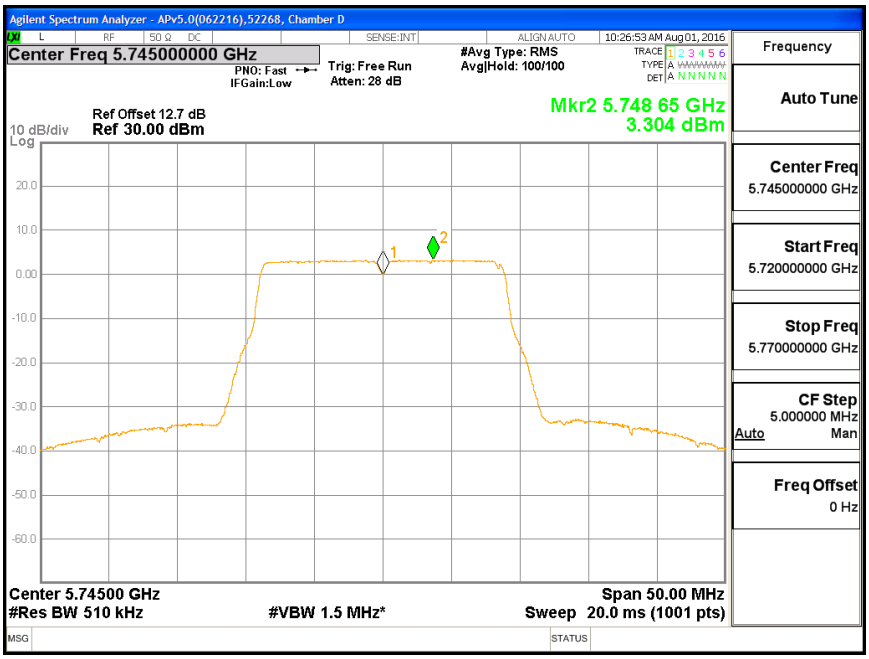
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

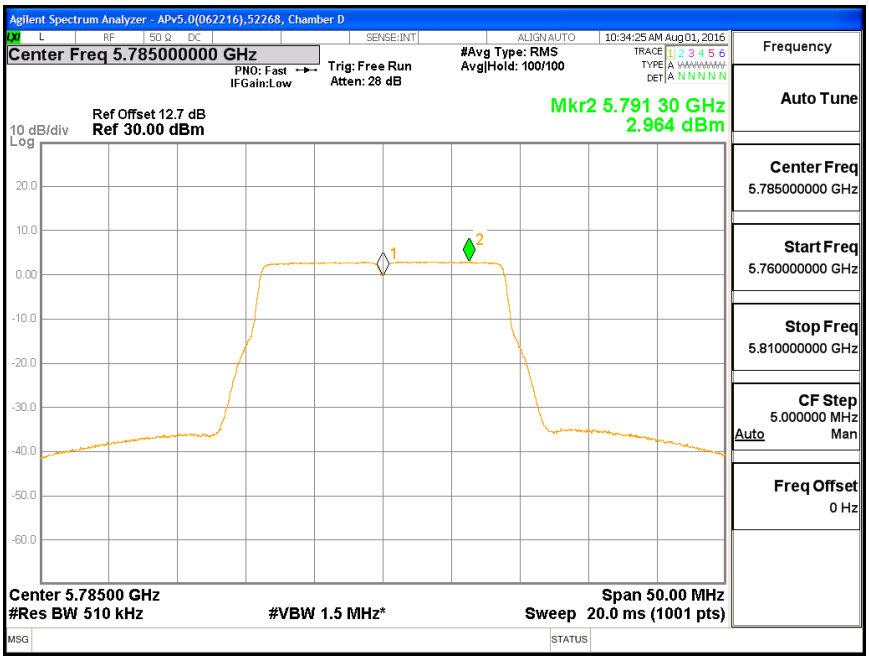
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	3.30	2.96	6.15	26.19	-20.04
Mid	5785	2.96	2.88	5.93	26.19	-20.26
High	5825	2.99	2.90	5.95	26.19	-20.24

PSD, CHAIN 0

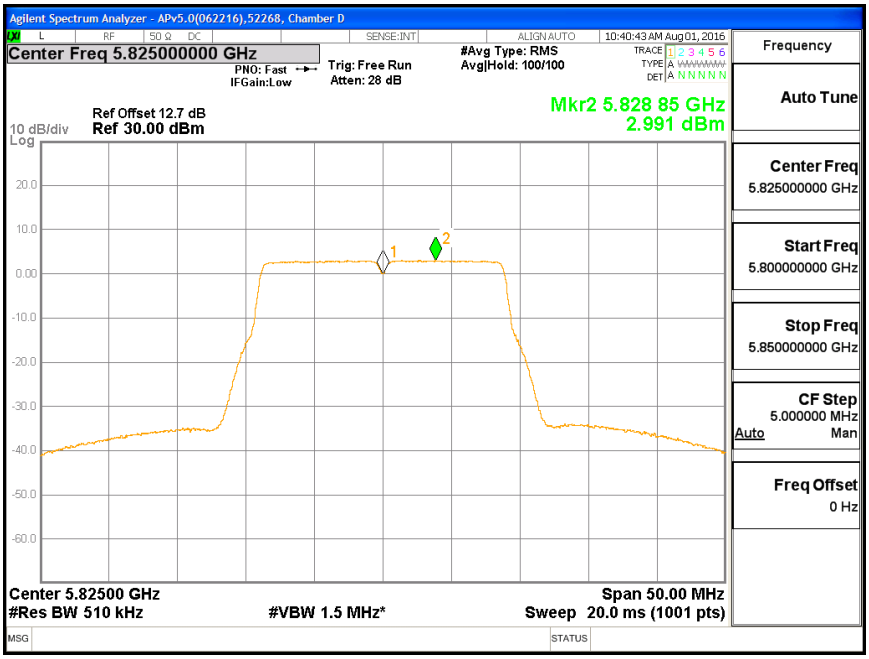
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER

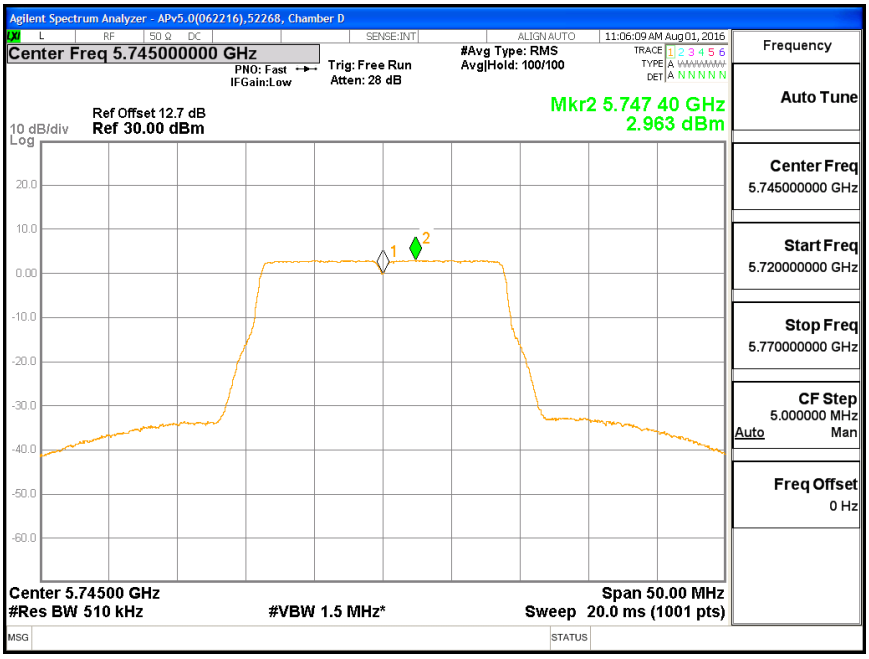


PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER

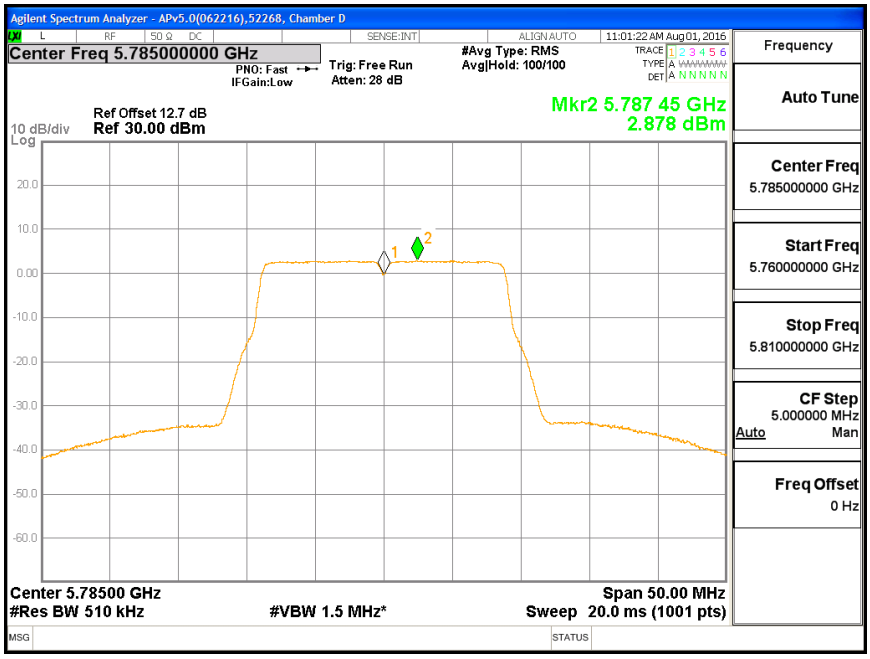


PSD, CHAIN 1

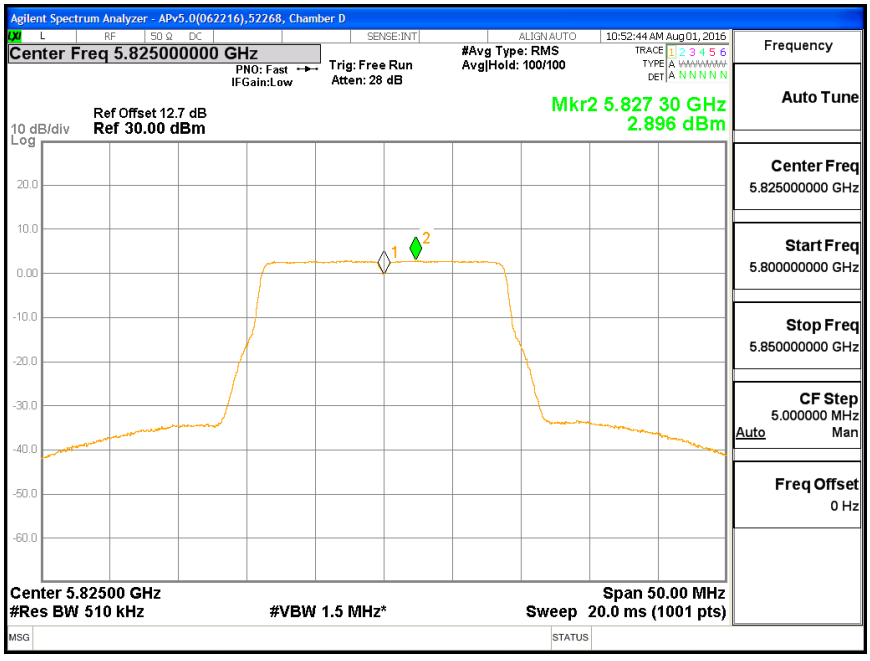
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER



PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER



8.69.7. AVERAGE POWER (IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	12.41	12.38	15.41
Mid	5785	13.21	13.17	16.20
High	5825	13.20	13.13	16.18

8.69.8. OUTPUT POWER (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.80	7.70	6.85

RESULTS

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	6.85	29.15
Mid	5785	6.85	29.15
High	5825	6.85	29.15

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	12.41	12.38	15.41	29.15	-13.74
Mid	5785	13.21	13.17	16.20	29.15	-12.95
High	5825	13.20	13.13	16.18	29.15	-12.97

8.69.9. PSD (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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)
5.80	7.70	9.81

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	9.81	26.19
Mid	5785	9.81	26.19
High	5825	9.81	26.19

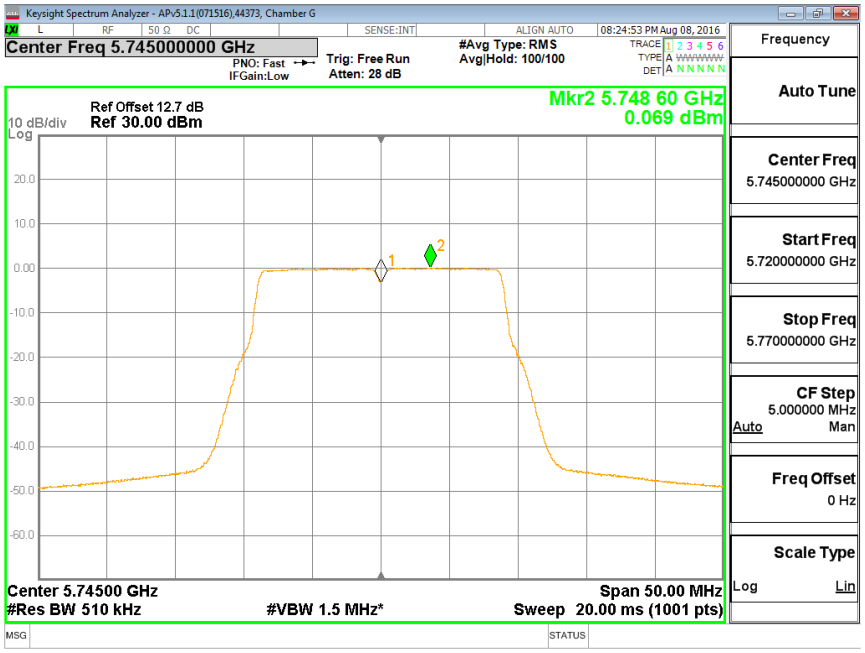
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

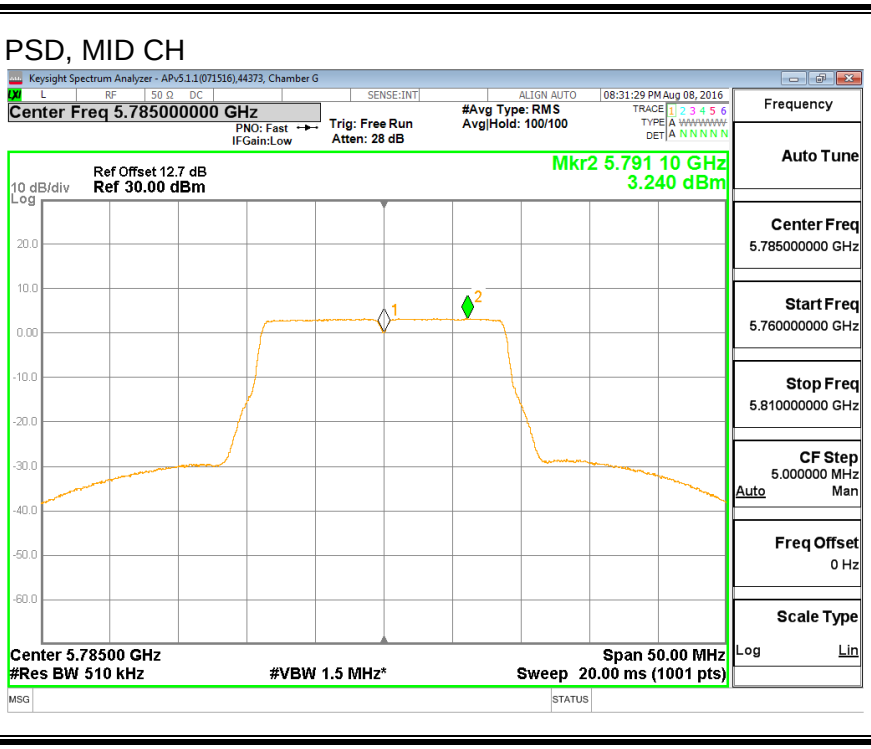
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	0.07	-0.22	2.94	26.19	-23.25
Mid	5785	3.24	3.47	6.37	26.19	-19.82
High	5825	1.02	0.86	3.95	26.19	-22.24

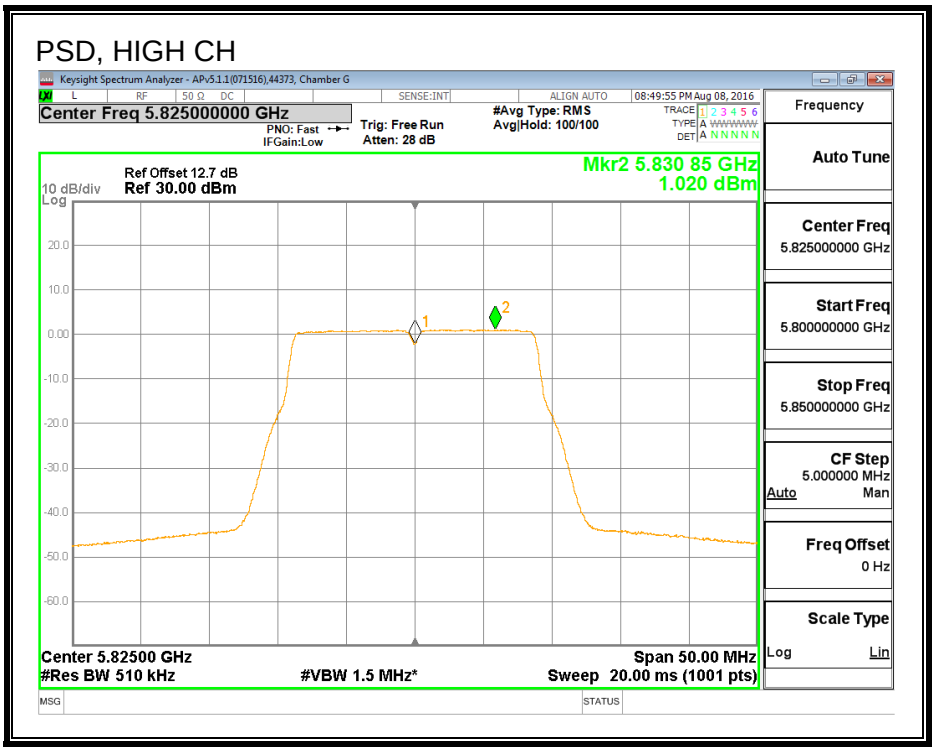
PSD, CHAIN 0

PSD, LOW CH

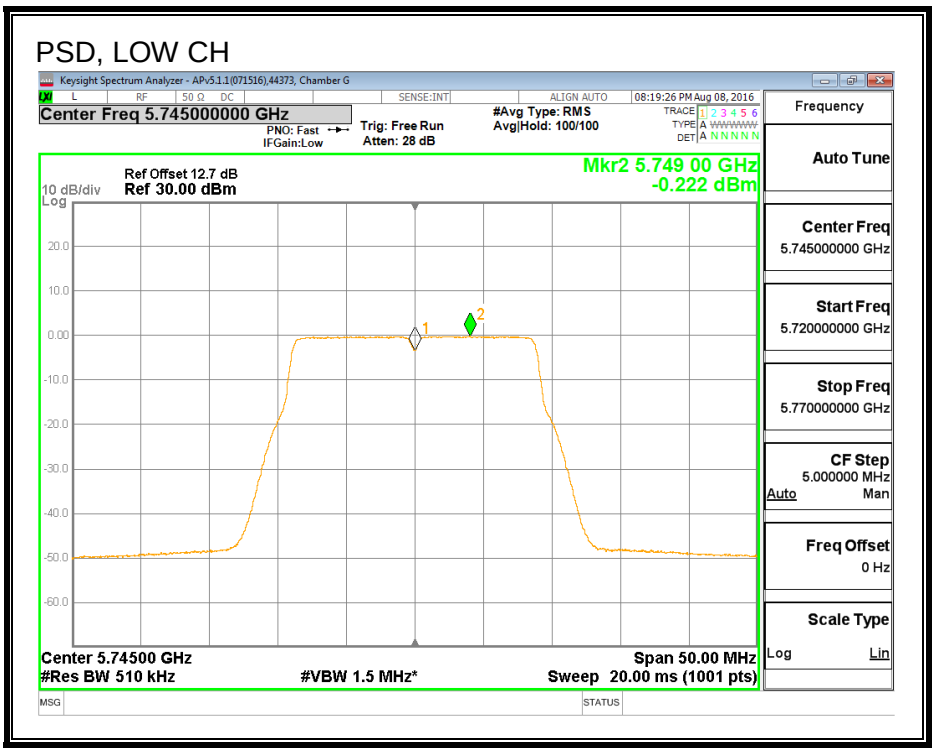


PSD, MID CH

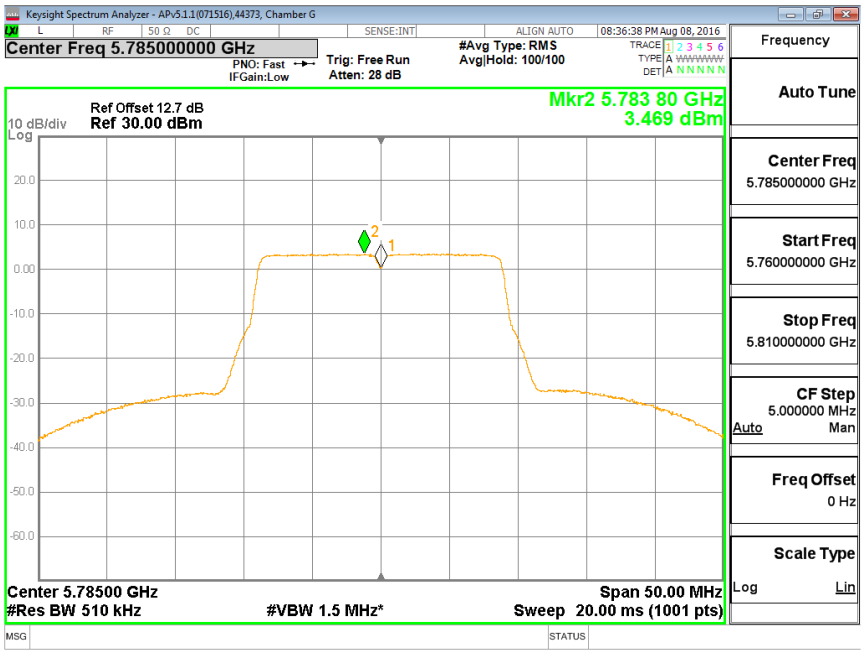




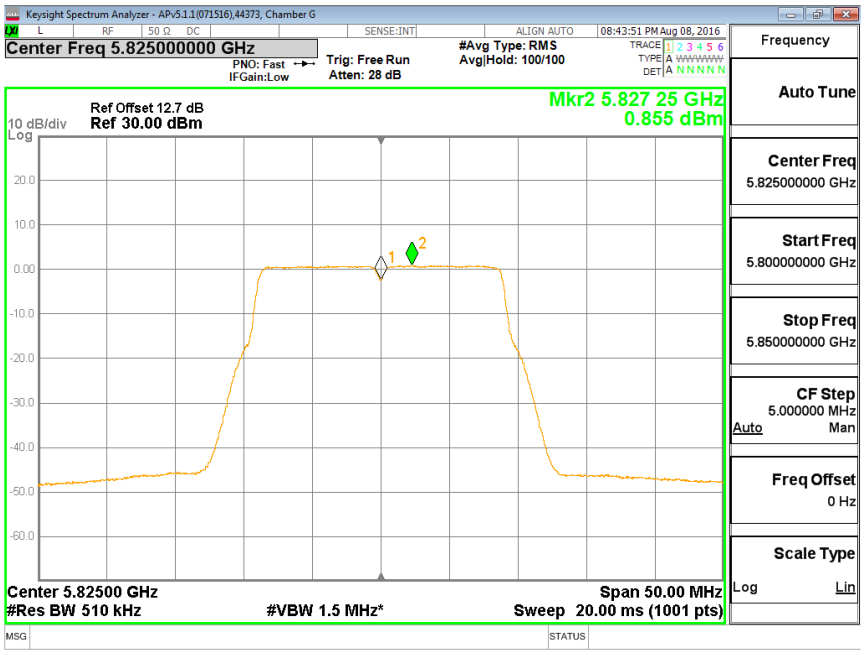
PSD, CHAIN 1



PSD, MID CH



PSD, HIGH CH



8.71. 802.11n HT20 2Tx STBC MODE IN THE 5.8 GHz BAND

8.71.1. 6 dB BANDWIDTH

LIMITS

FCC §15.407 (e)

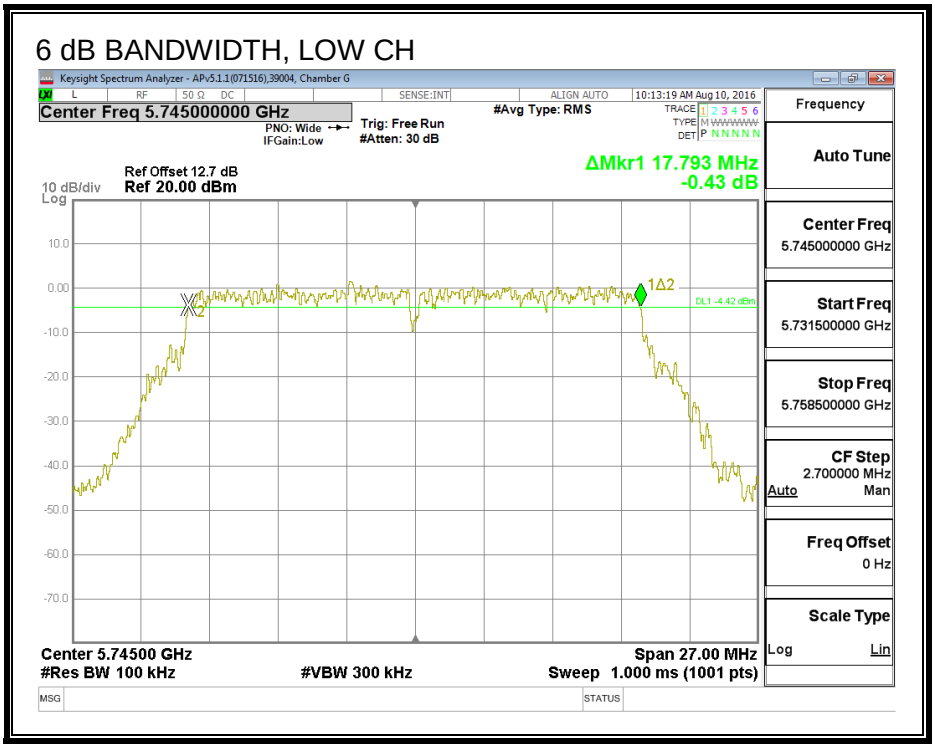
IC RSS-247 (6.2.4) (1)

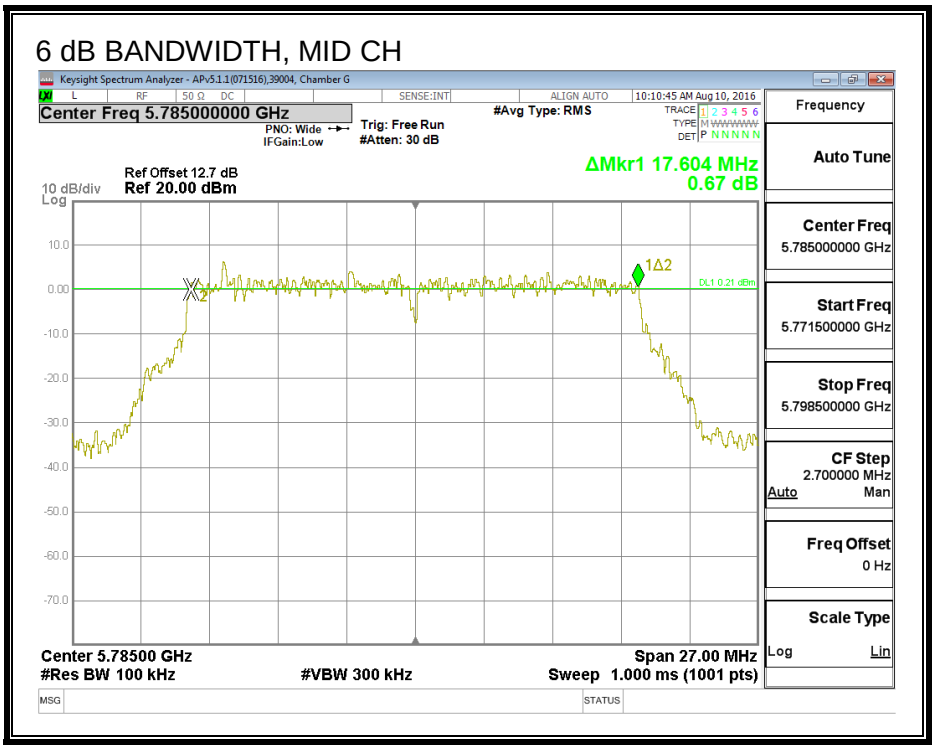
The minimum 6 dB bandwidth shall be at least 500 kHz.

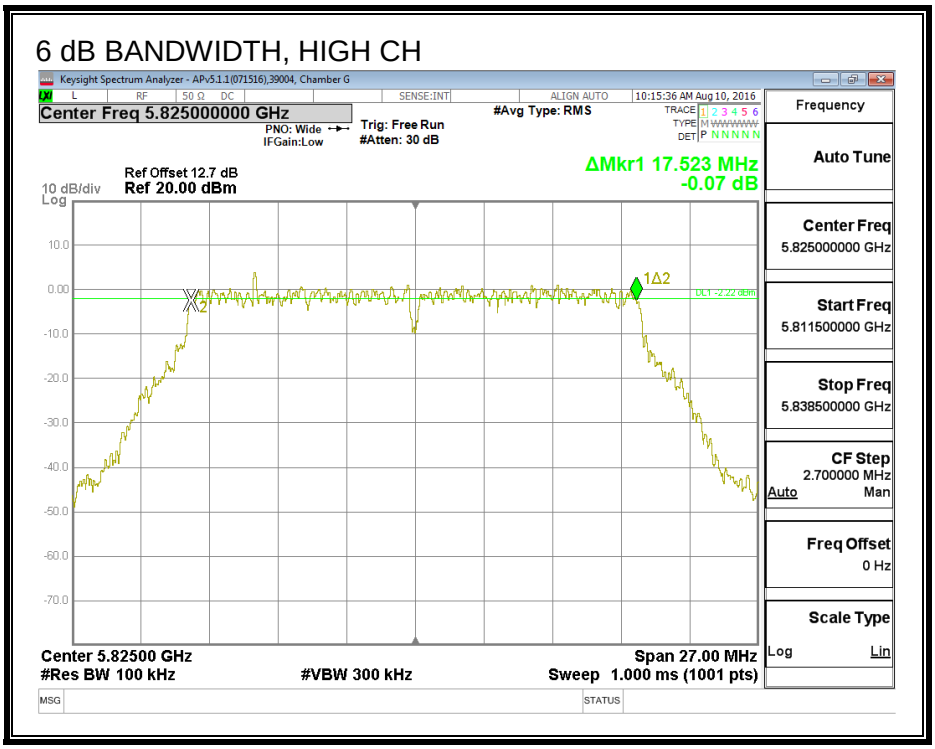
RESULTS

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.79	17.60	0.5
Mid	5785	17.60	17.74	0.5
High	5825	17.52	17.74	0.5

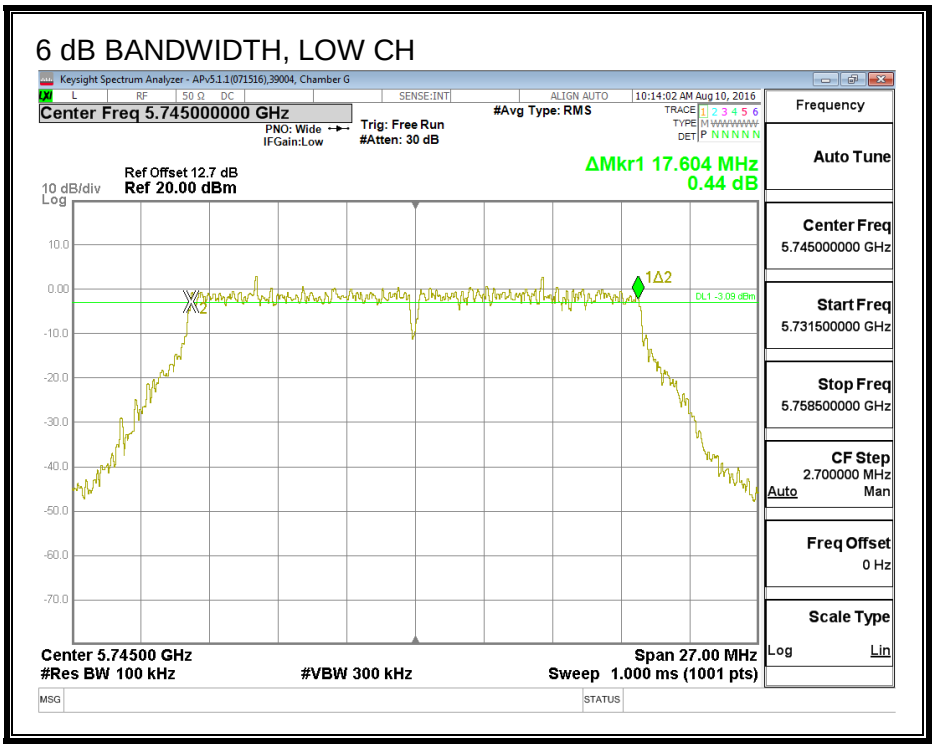
6 dB BANDWIDTH, CHAIN 0



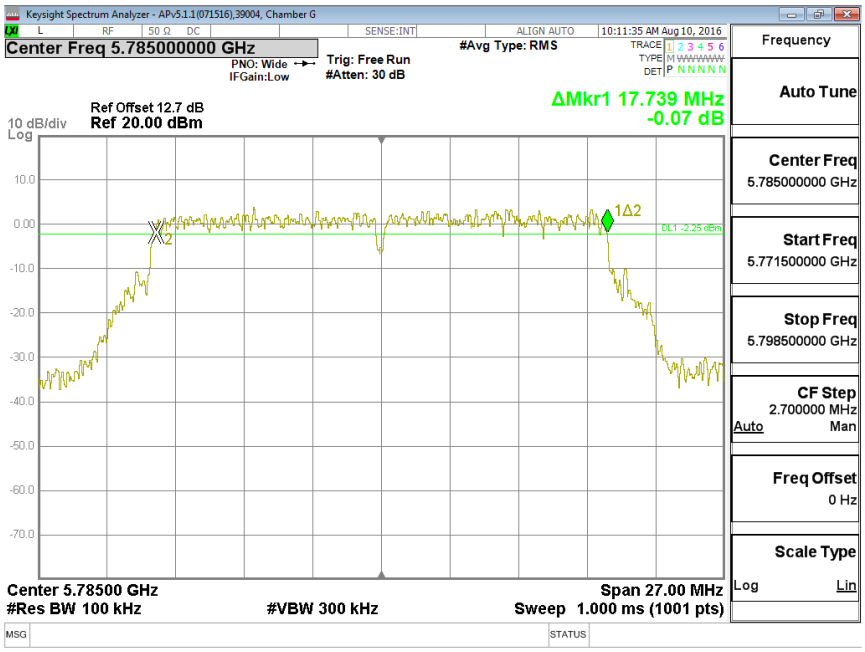




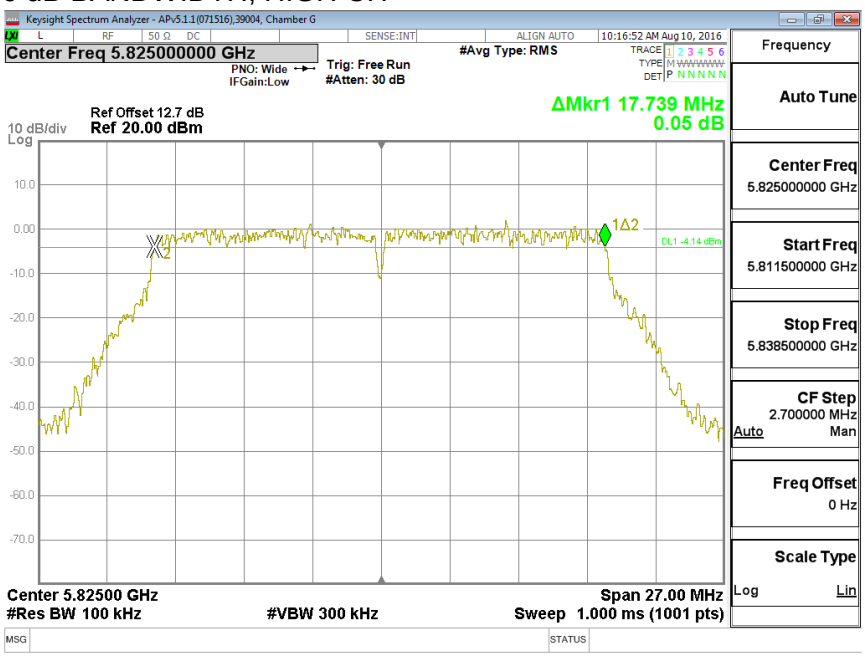
6 dB BANDWIDTH, CHAIN 1



6 dB BANDWIDTH, MID CH



6 dB BANDWIDTH, HIGH CH



8.71.2. 26 dB BANDWIDTH

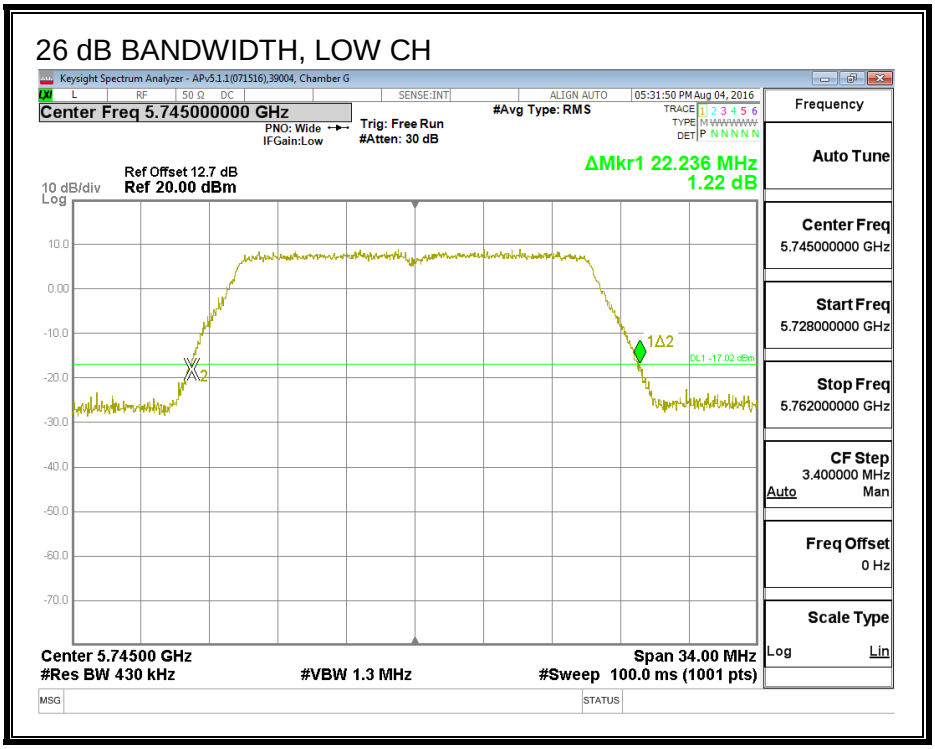
LIMITS

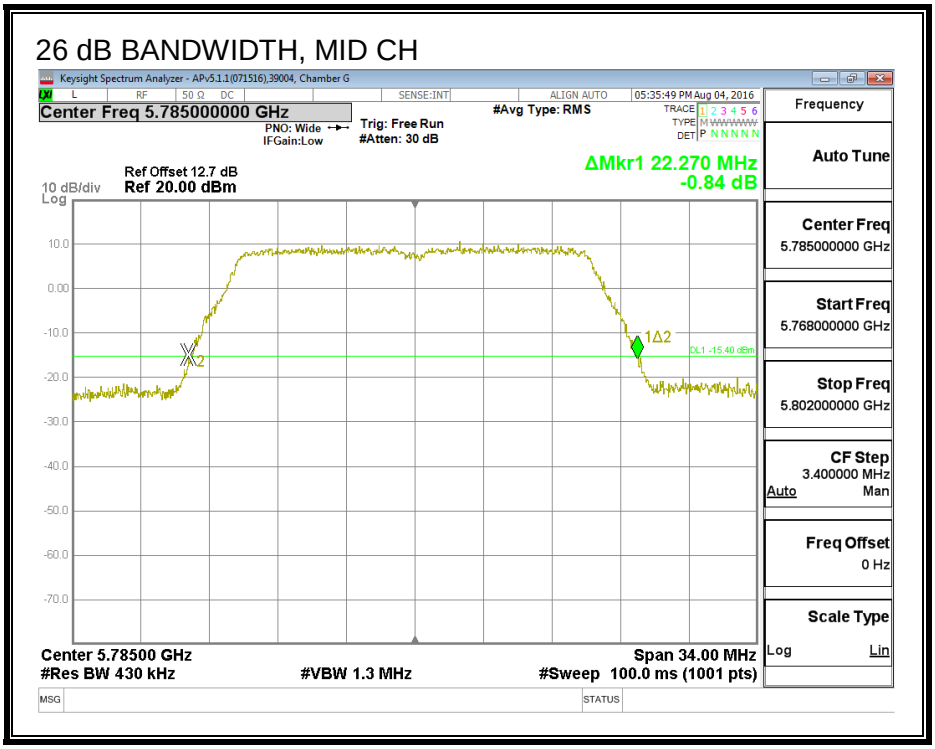
None, for reporting purposes only.

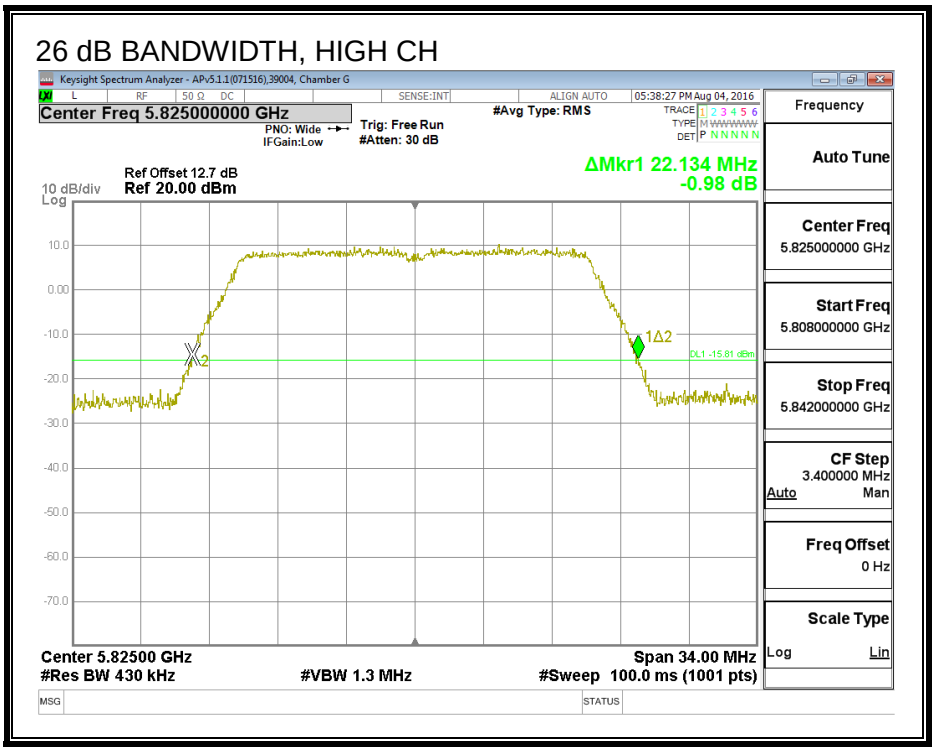
RESULTS

Channel	Frequency (MHz)	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	22.236	22.338
Mid	5785	22.270	22.236
High	5825	22.134	22.372

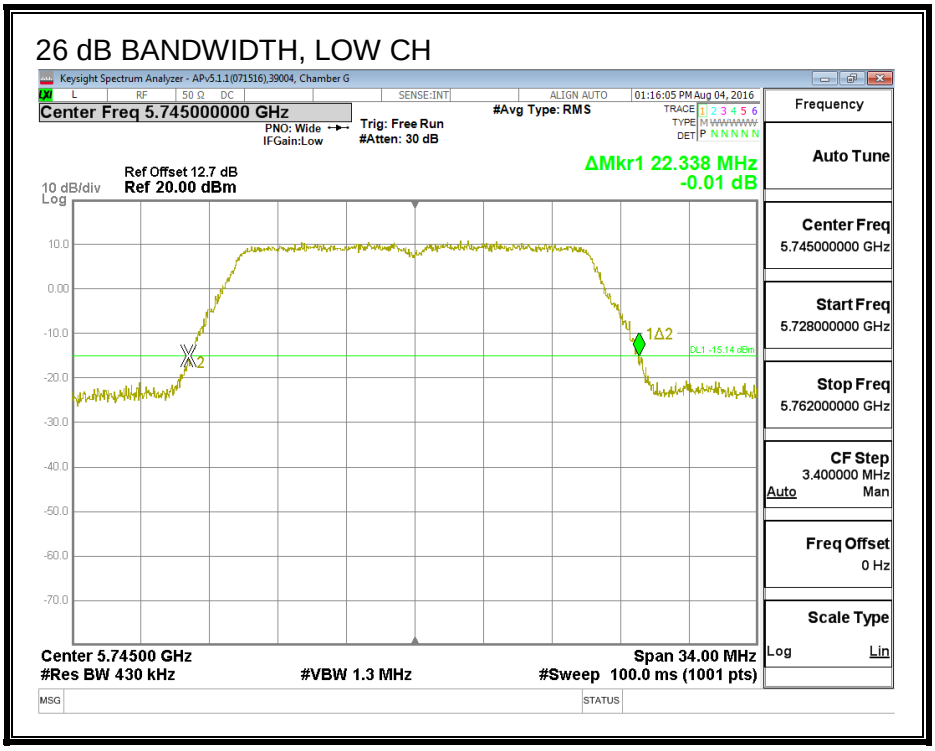
26 dB BANDWIDTH, CHAIN 0



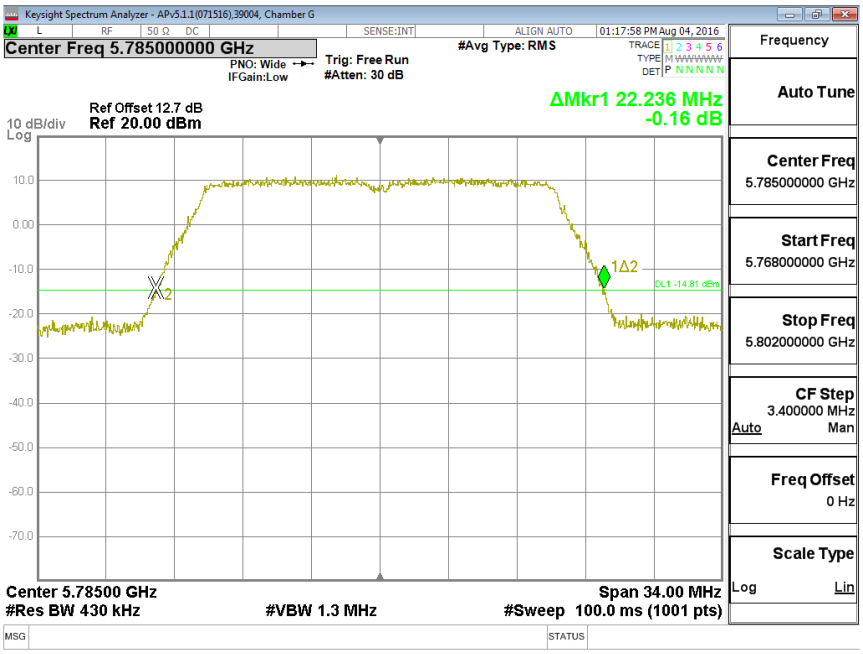




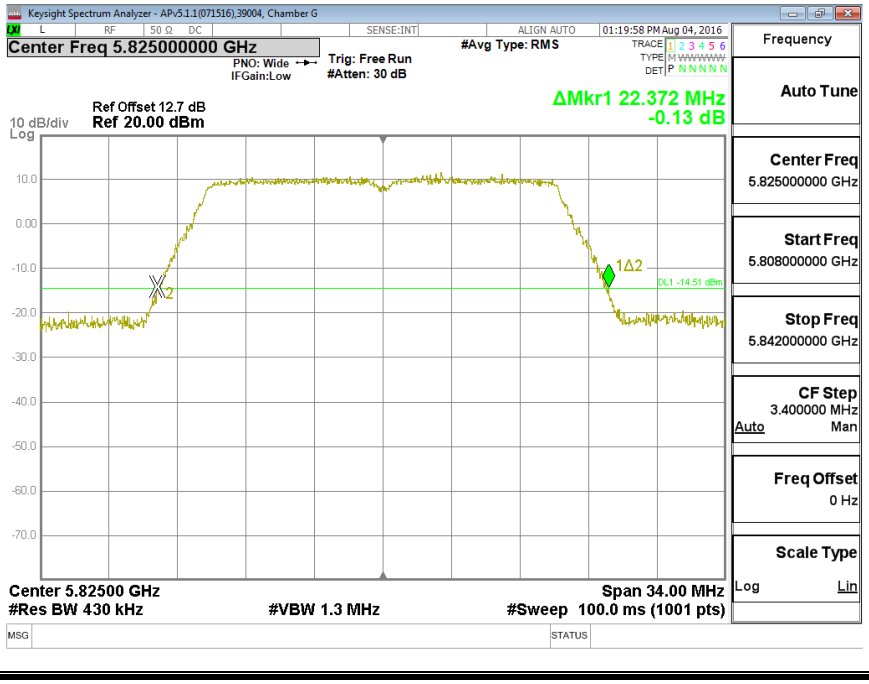
26 dB BANDWIDTH, CHAIN 1



26 dB BANDWIDTH, MID CH



26 dB BANDWIDTH, HIGH CH



8.71.3. 99% BANDWIDTH

LIMITS

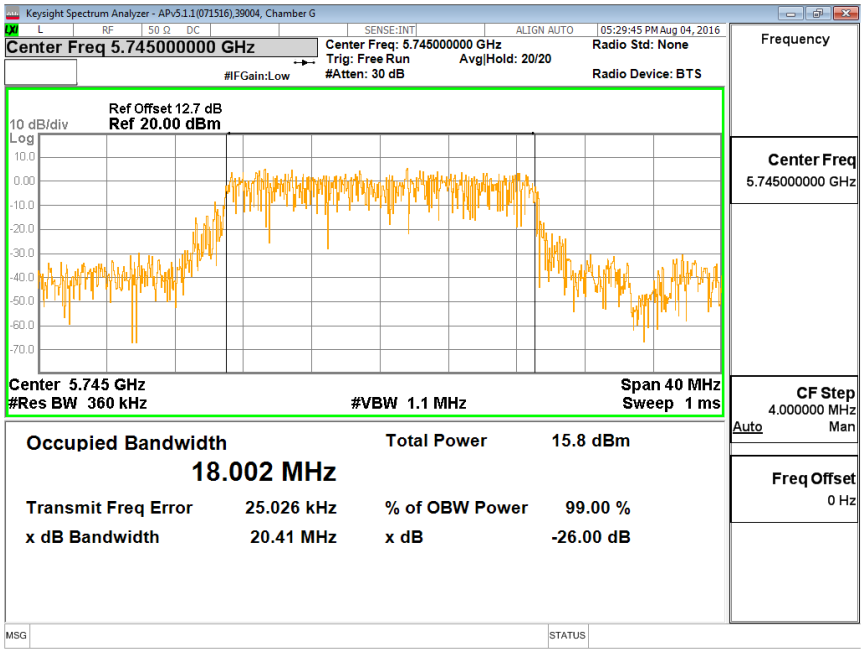
None; for reporting purposes only.

RESULTS

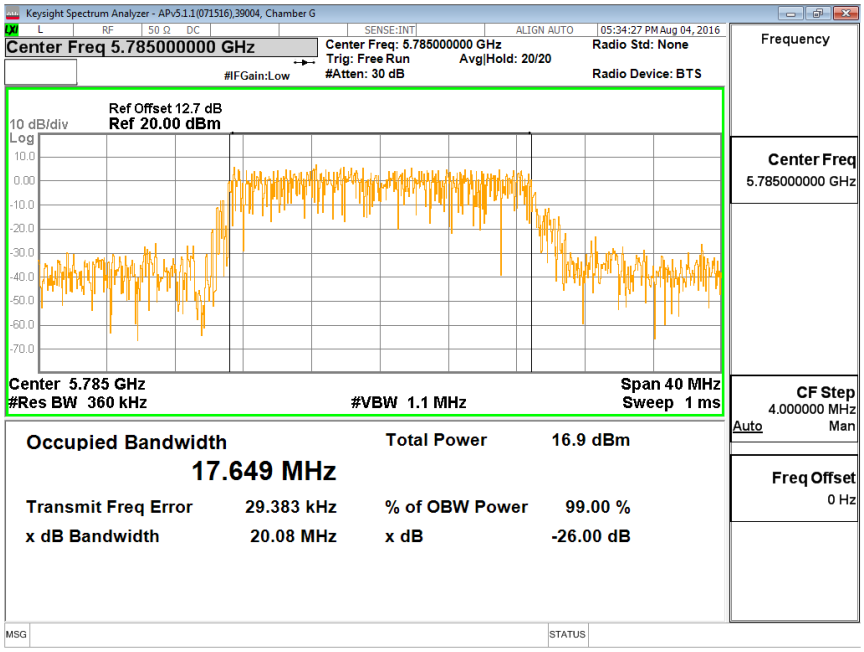
Channel	Frequency (MHz)	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	18.002	17.769
Mid	5785	17.649	17.804
High	5825	17.855	17.960

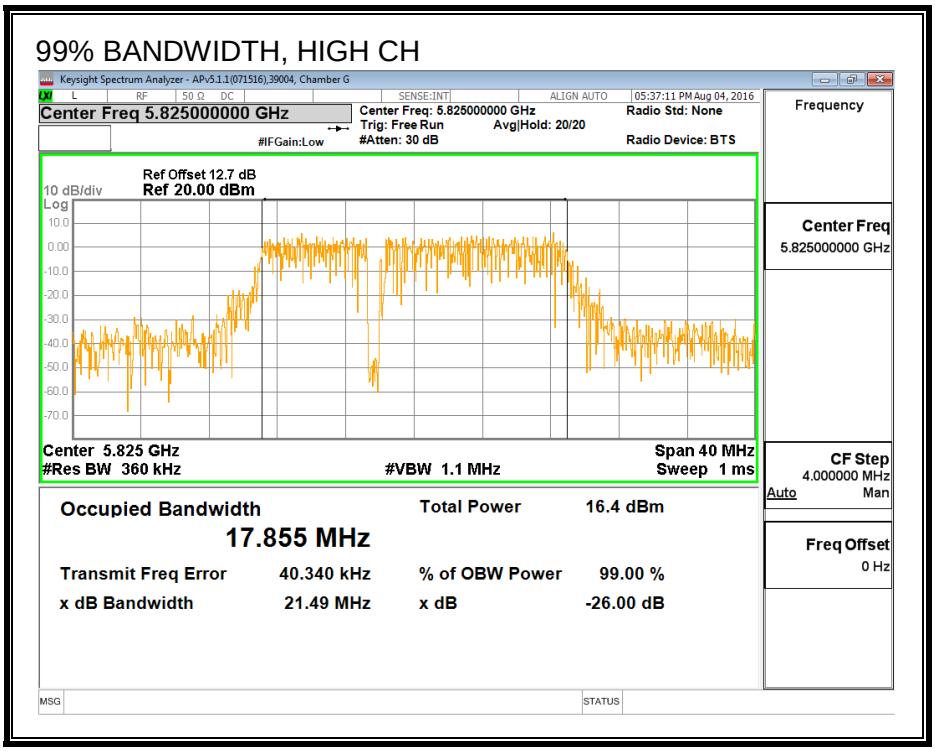
99% BANDWIDTH, CHAIN 0

99% BANDWIDTH, LOW CH

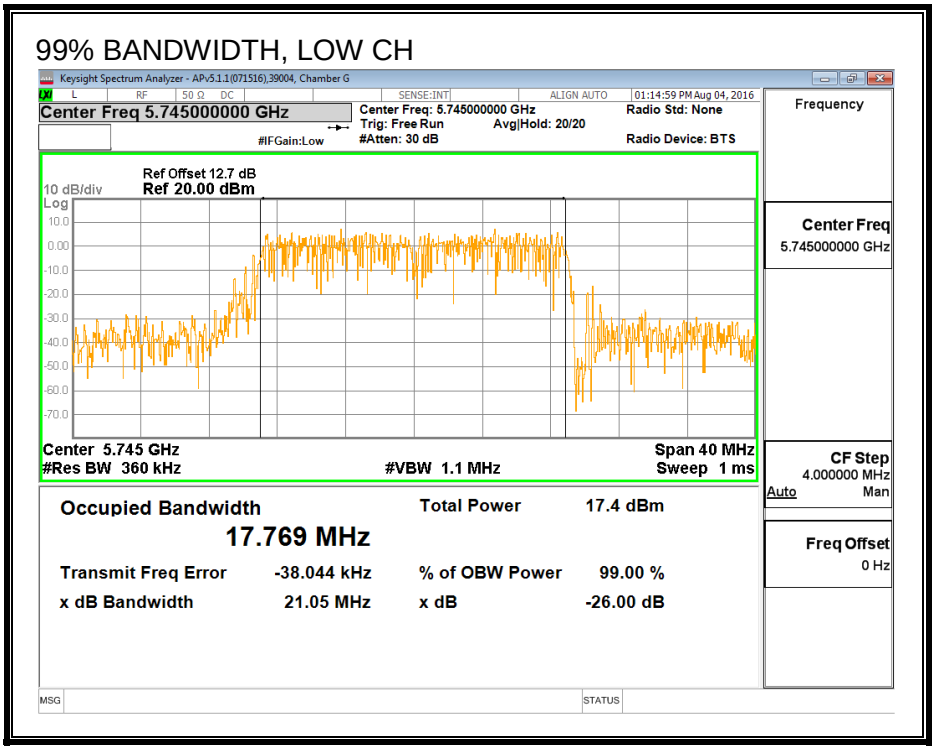


99% BANDWIDTH, MID CH

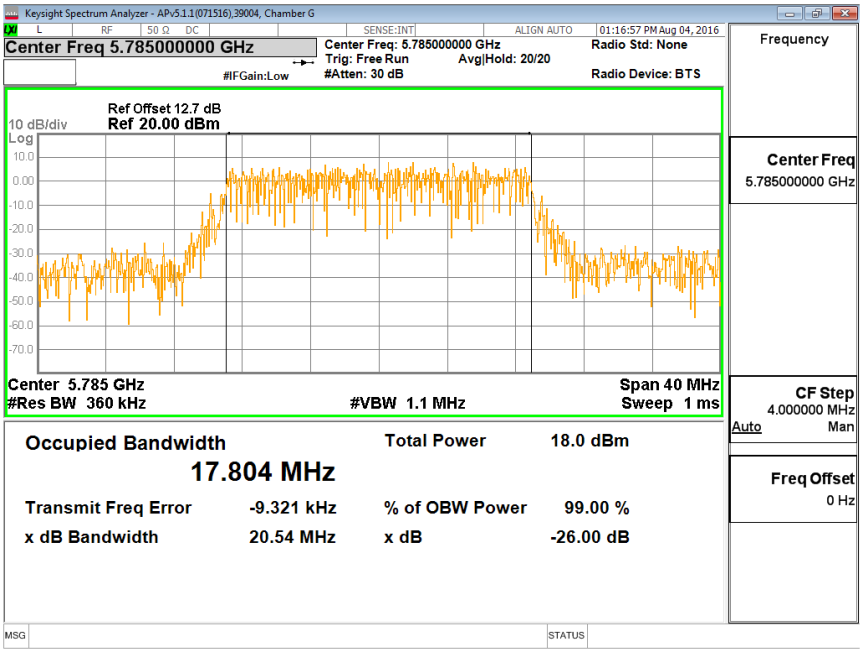




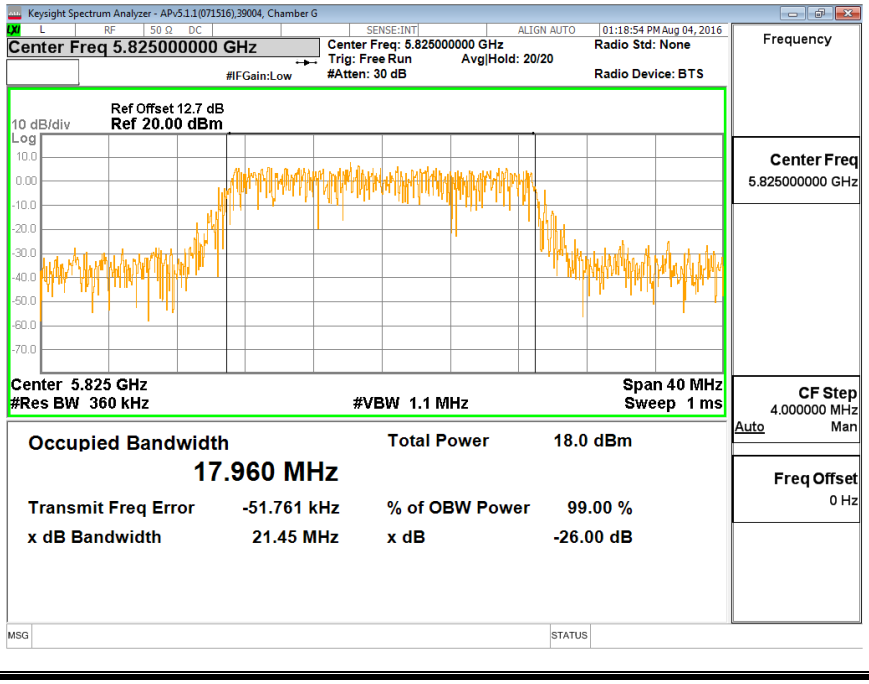
99% BANDWIDTH, CHAIN 1



99% BANDWIDTH, MID CH



99% BANDWIDTH, HIGH CH



8.71.4. AVERAGE POWER (FCC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	13.11	13.16	16.15
Mid	5785	13.24	13.21	16.24
High	5825	13.21	13.23	16.23

8.71.5. OUTPUT POWER (FCC)

LIMITS

FCC §15.407 (a) (3)

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

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.80	7.70	6.85

RESULTS

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	6.85	29.15
Mid	5785	6.85	29.15
High	5825	6.85	29.15

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	13.11	13.16	16.15	29.15	-13.00
Mid	5785	13.24	13.21	16.24	29.15	-12.91
High	5825	13.21	13.23	16.23	29.15	-12.92

8.71.6. PSD (FCC)

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)
5.80	7.70	6.85

RESULTS

Antenna Gain and Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	PSD Limit (dBm)
Low	5745	6.85	29.15
Mid	5785	6.85	29.15
High	5825	6.85	29.15

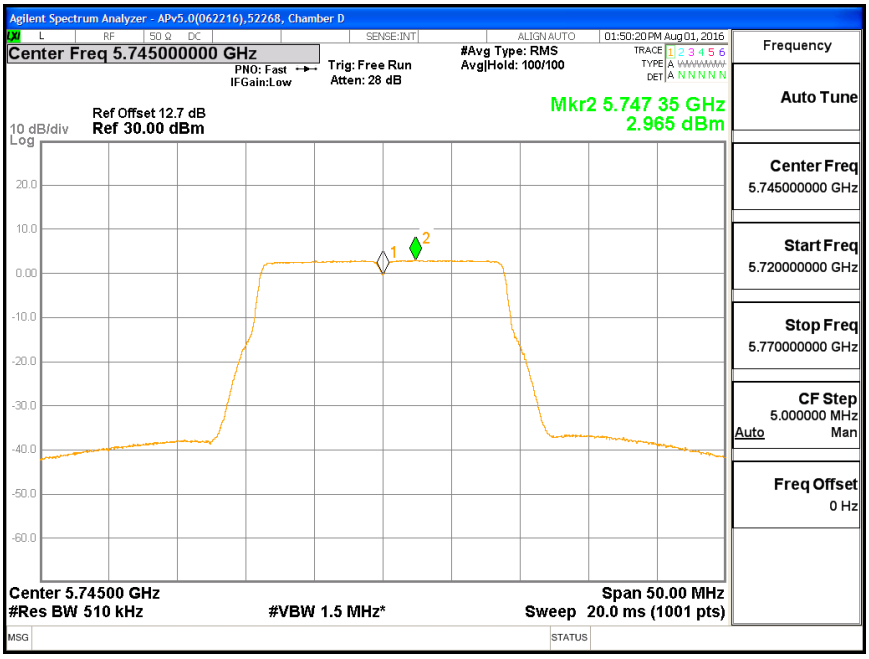
Duty Cycle CF (dB)	0.00	Included in Calculations of Corr'd PSD

PSD Results

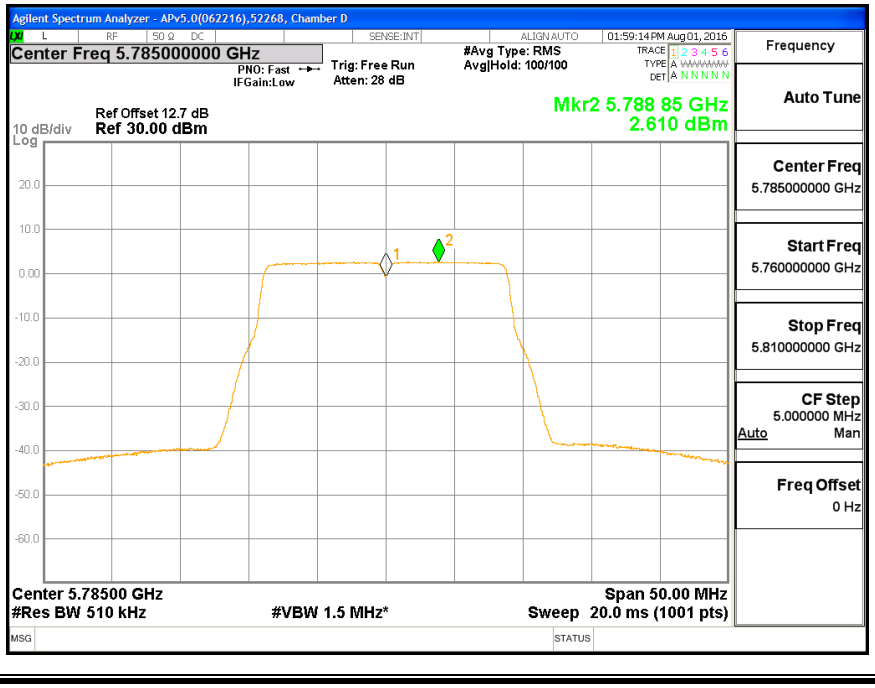
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	2.97	2.91	5.95	29.15	-23.20
Mid	5785	2.61	2.80	5.71	29.15	-23.44
High	5825	3.14	2.83	6.00	29.15	-23.15

PSD, CHAIN 0

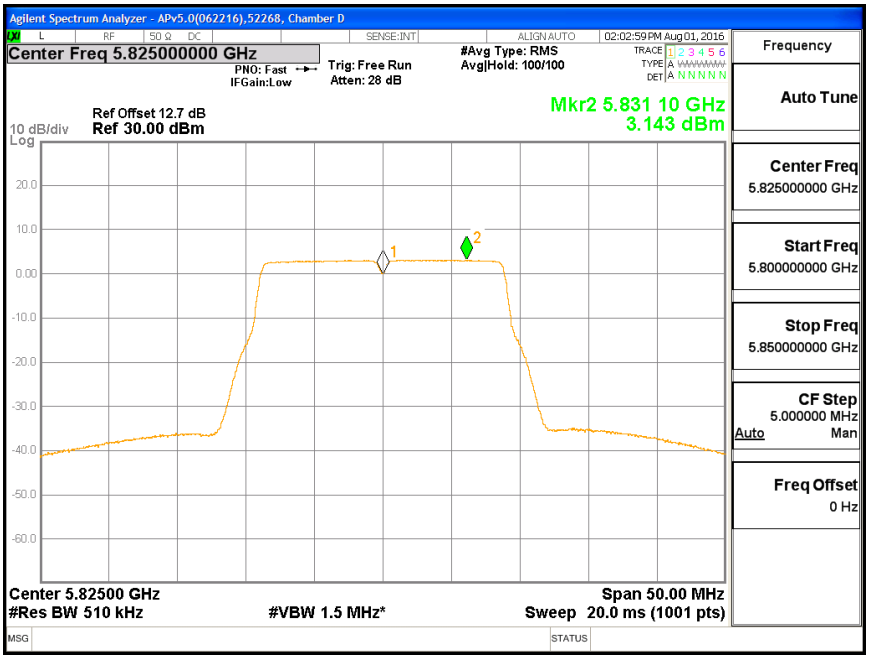
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER

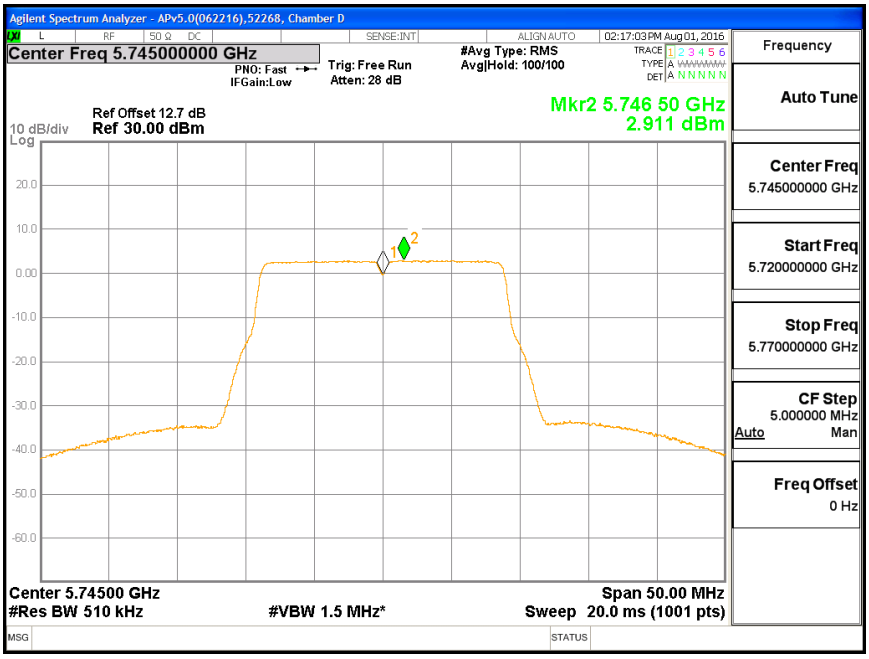


PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER

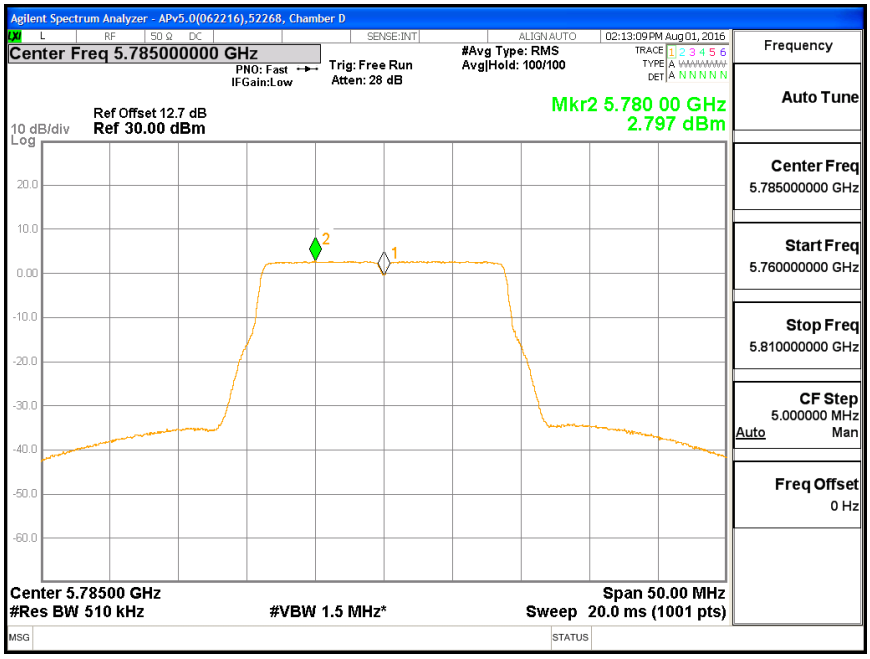


PSD, CHAIN 1

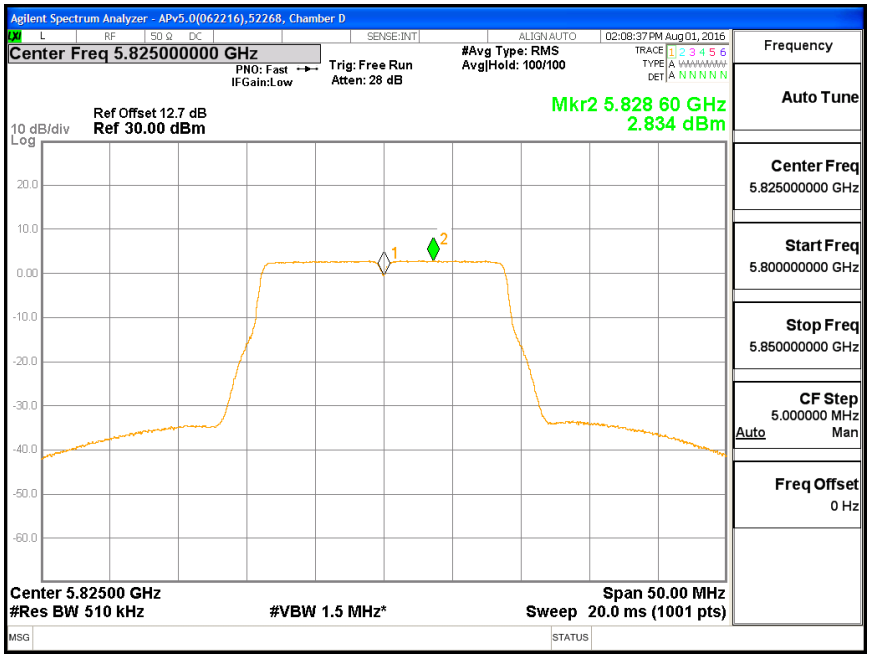
PSD, LOW CH
PSD WAS TESTED WITH HIGH POWER



PSD, MID CH
PSD WAS TESTED WITH HIGH POWER



PSD, HIGH CH
PSD WAS TESTED WITH HIGH POWER



8.71.7. AVERAGE POWER (IC)

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband gated RF power meter.

RESULTS

ID:	39004	Date:	9/2/16

Channel	Frequency (MHz)	Chain 0 Power (dBm)	Chain 1 Power (dBm)	Total Power (dBm)
Low	5745	13.14	13.21	16.19
Mid	5785	13.22	13.19	16.22
High	5825	13.20	13.16	16.19

8.71.8. OUTPUT POWER (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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

TEST PROCEDURE

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

DIRECTIONAL ANTENNA GAIN

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
5.80	7.70	6.85

RESULTS

ID:	39004	Date:	9/2/16

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Power Limit (dBm)
Low	5745	6.85	29.15
Mid	5785	6.85	29.15
High	5825	6.85	29.15

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	13.14	13.21	16.19	29.15	-12.96
Mid	5785	13.22	13.19	16.22	29.15	-12.93
High	5825	13.20	13.16	16.19	29.15	-12.96

8.71.9. PSD (IC)

LIMITS

IC RSS-247 (6.2.4) (1)

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)
5.80	7.70	6.85