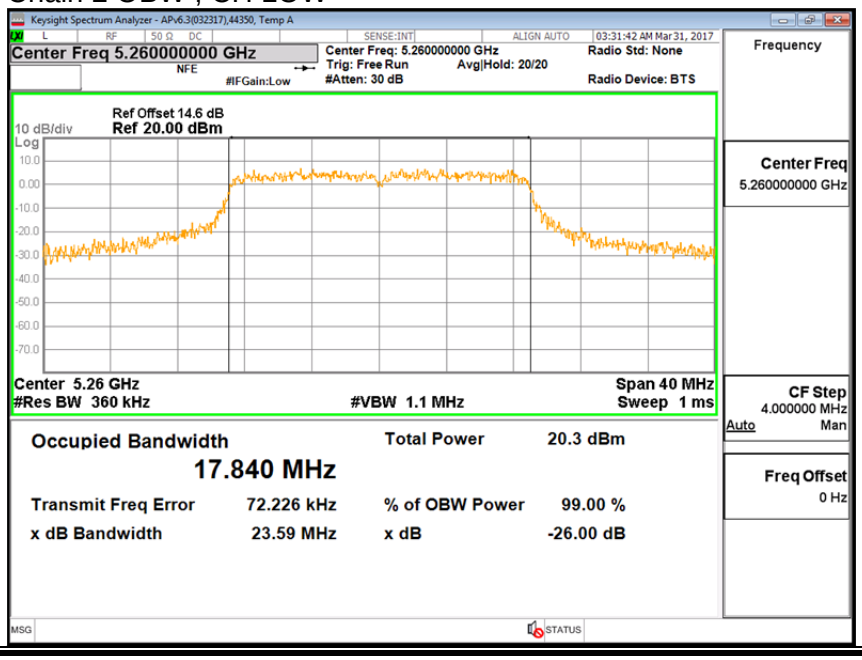
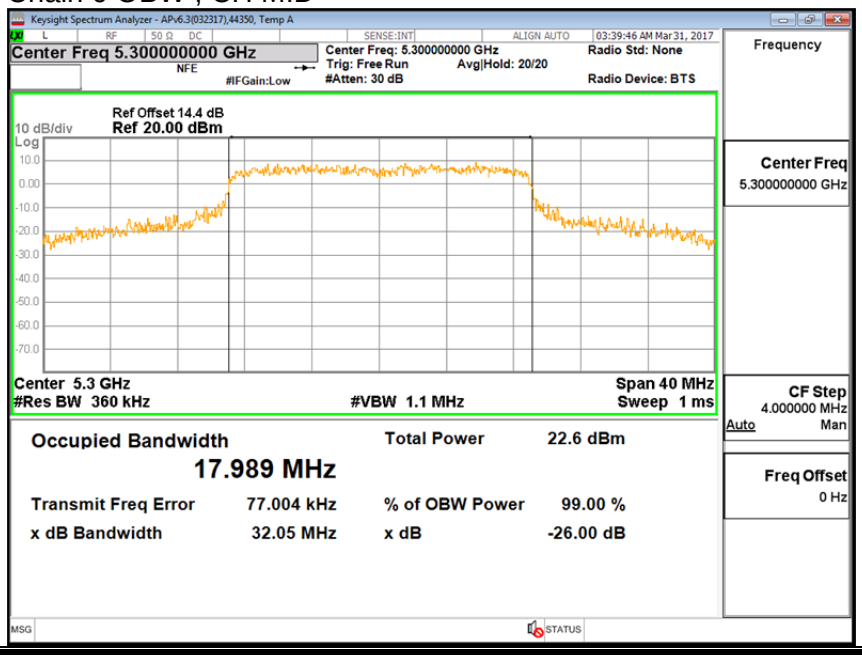
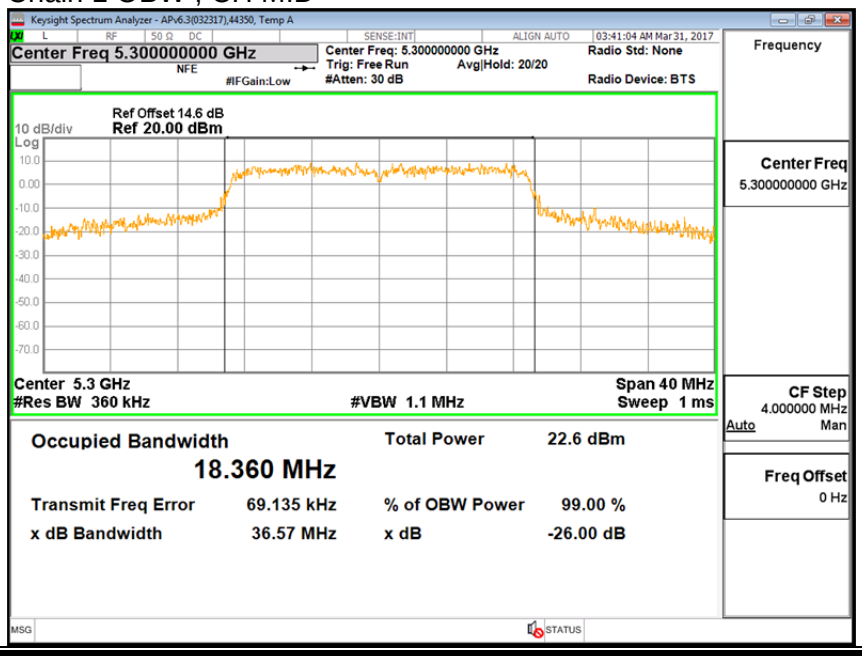
Chain 2 OBW , CH LOW



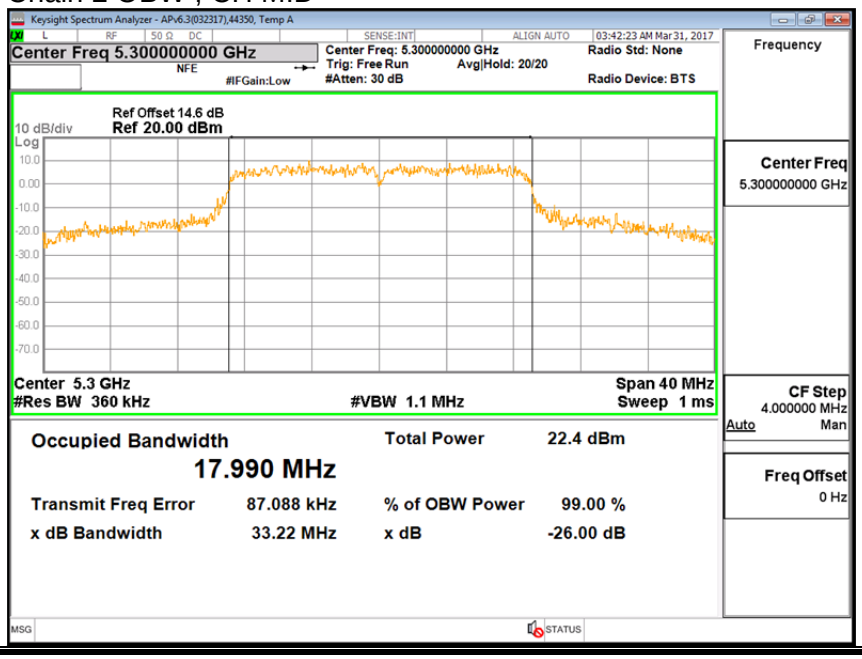
Chain 0 OBW , CH MID



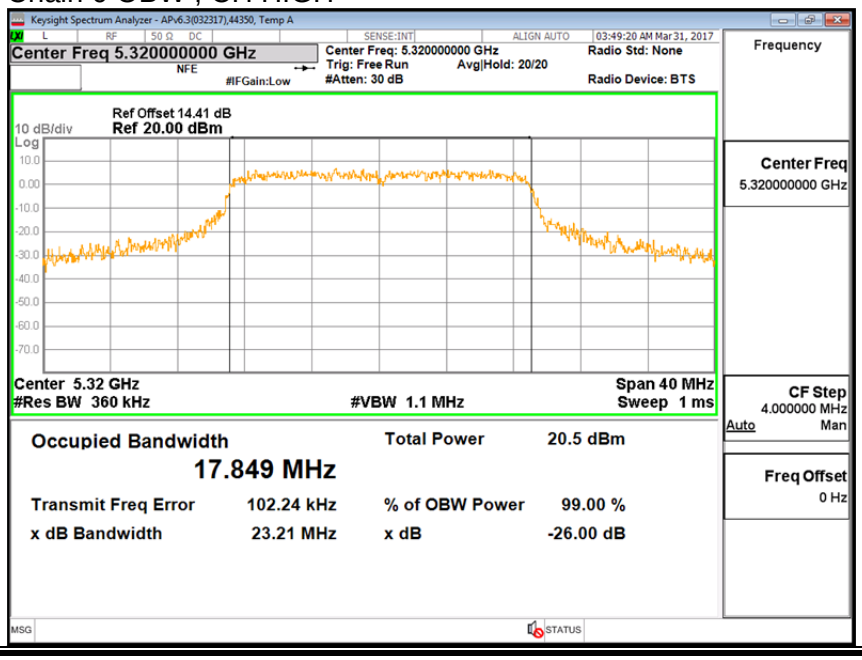
Chain 1 OBW , CH MID



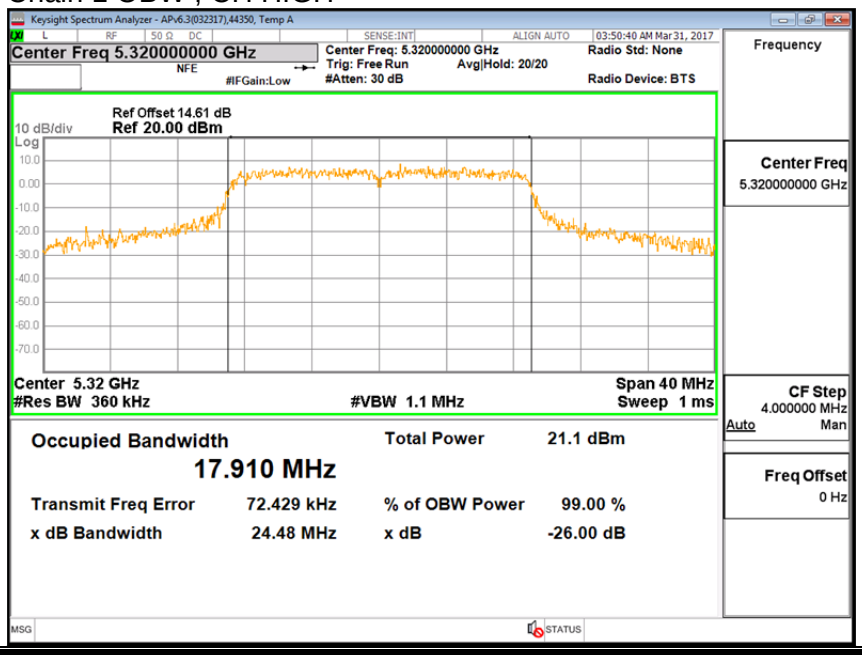
Chain 2 OBW , CH MID



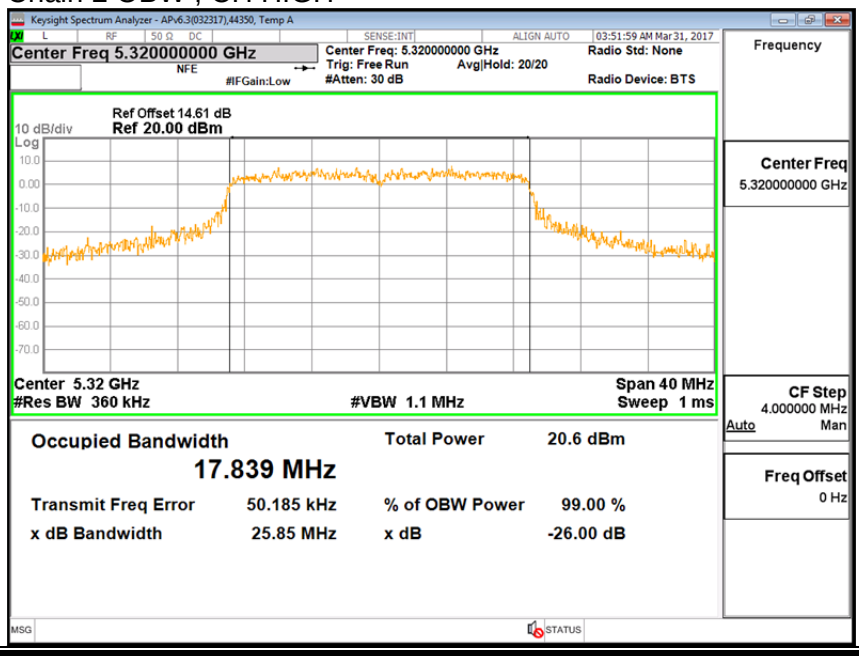
Chain 0 OBW , CH HIGH



Chain 1 OBW , CH HIGH



Chain 2 OBW , CH HIGH



9.5.3. OUTPUT POWER AND PPSD

LIMITS

FCC §15.407 (a) (2)

For the band 5.25–5.35 GHz, the maximum conducted output power over the frequency band of operation shall not exceed the lesser of 250 mW or 11 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.

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

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.41	2.26	4.22	3.37

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.41	2.26	4.22	8.10

RESULTS

ID:	GE43578	Date:	5/16/17

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)
Low	5260	33.35	3.37	8.10	24.00	8.90
Mid	5300	42.75	3.37	8.10	24.00	8.90
High	5320	33.50	3.37	8.10	24.00	8.90

Duty Cycle CF (dB)	0.37	Included in Calculations of Corr'd Power & PSD

Output Power Results

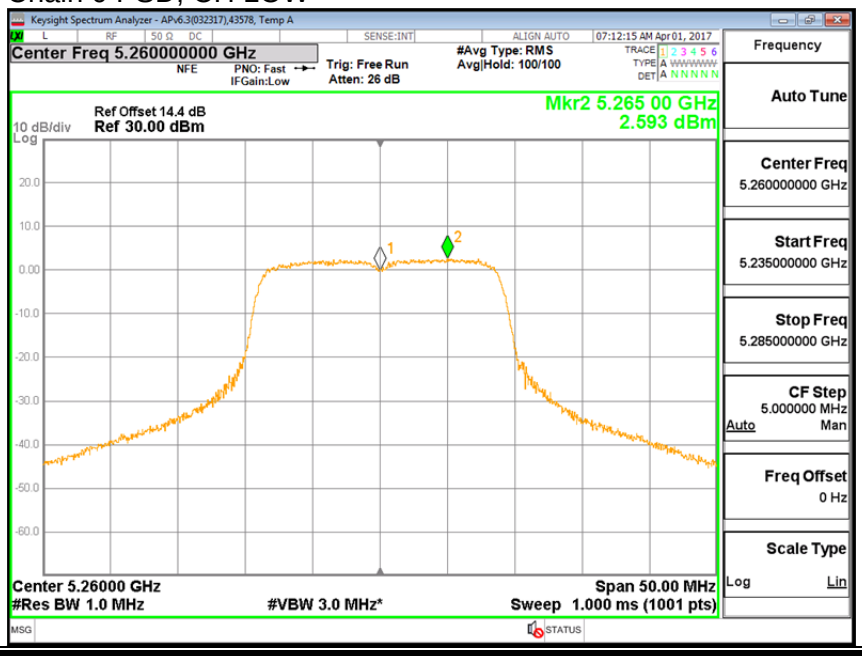
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5260	14.18	14.77	14.37	19.59	24.00	-4.41
Mid	5300	14.60	14.80	14.51	19.78	24.00	-4.22
High	5320	14.76	15.26	14.97	20.14	24.00	-3.86

PPSD Results

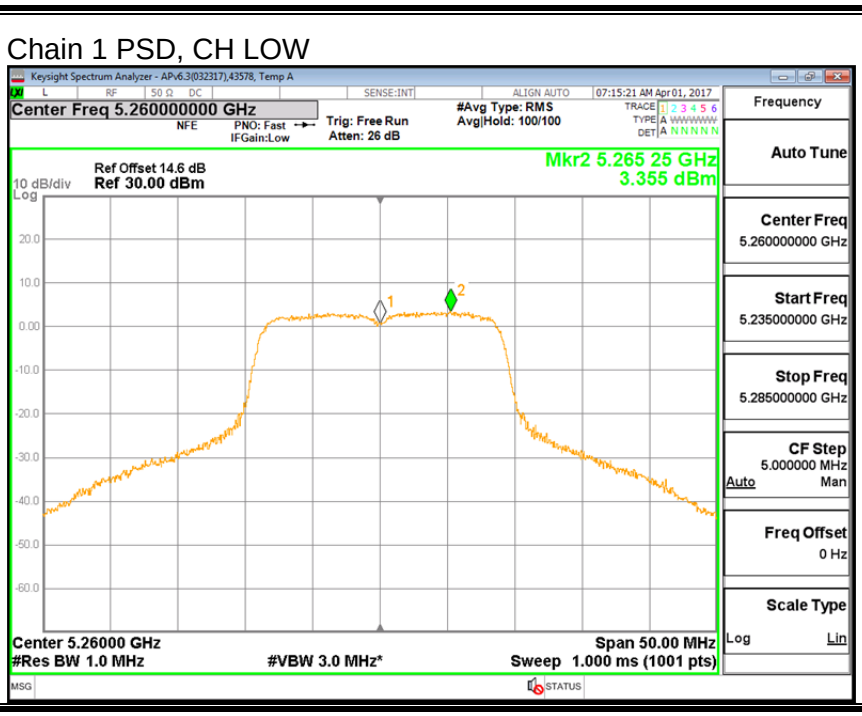
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5260	2.593	3.355	2.831	8.08	8.90	-0.82
Mid	5300	3.040	3.659	2.903	8.35	8.90	-0.55
High	5320	3.323	3.842	3.683	8.76	8.90	-0.14

Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

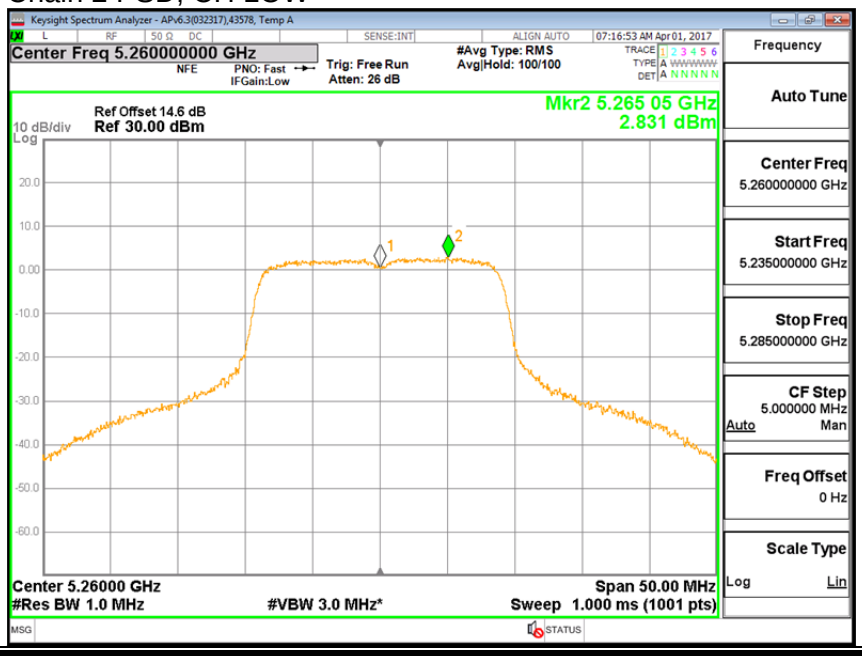
Chain 0 PSD, CH LOW



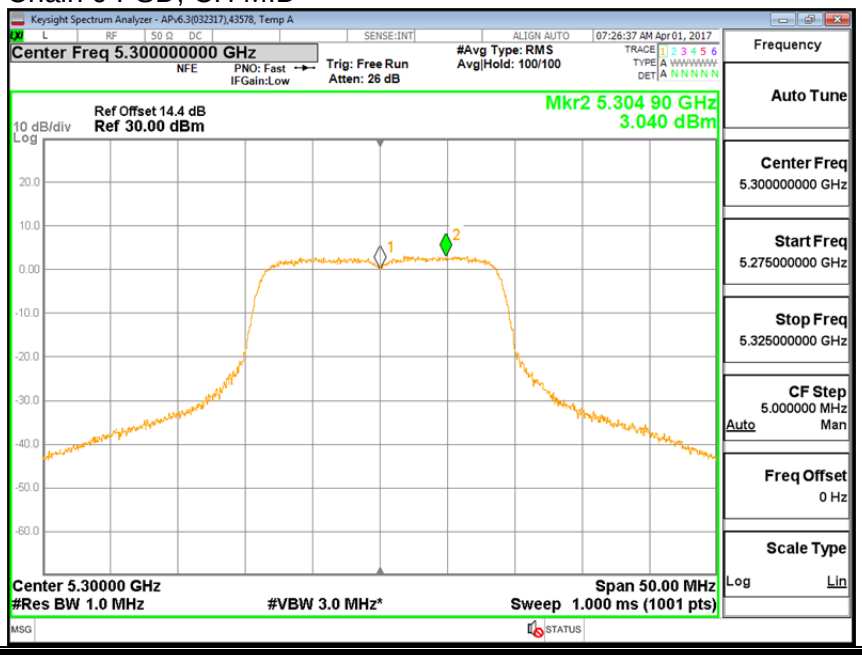
Chain 1 PSD, CH LOW



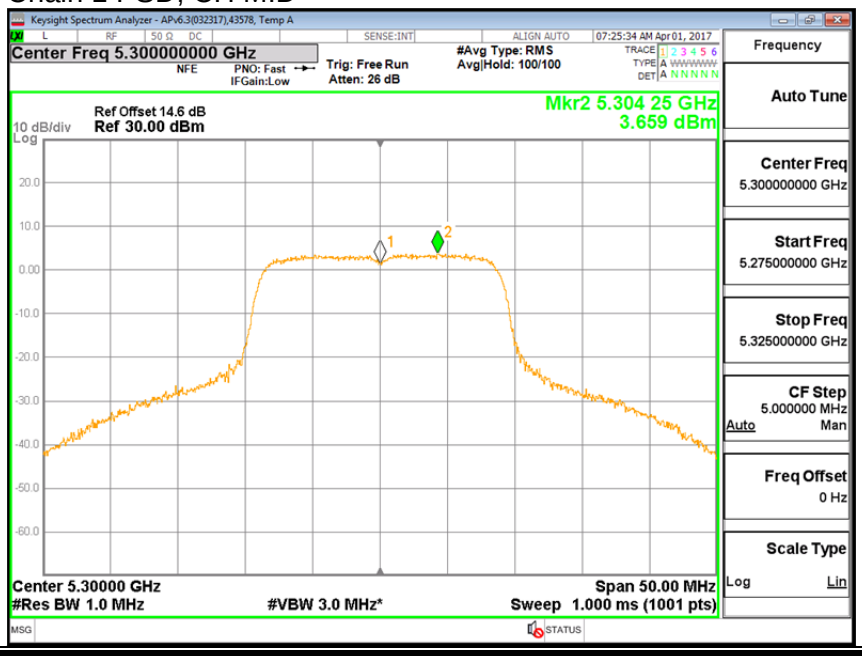
Chain 2 PSD, CH LOW



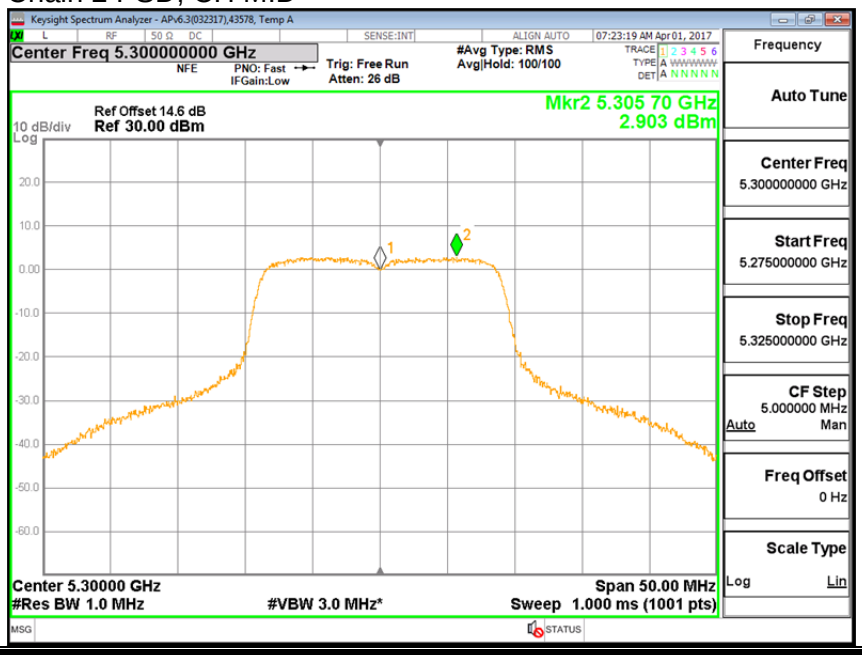
Chain 0 PSD, CH MID



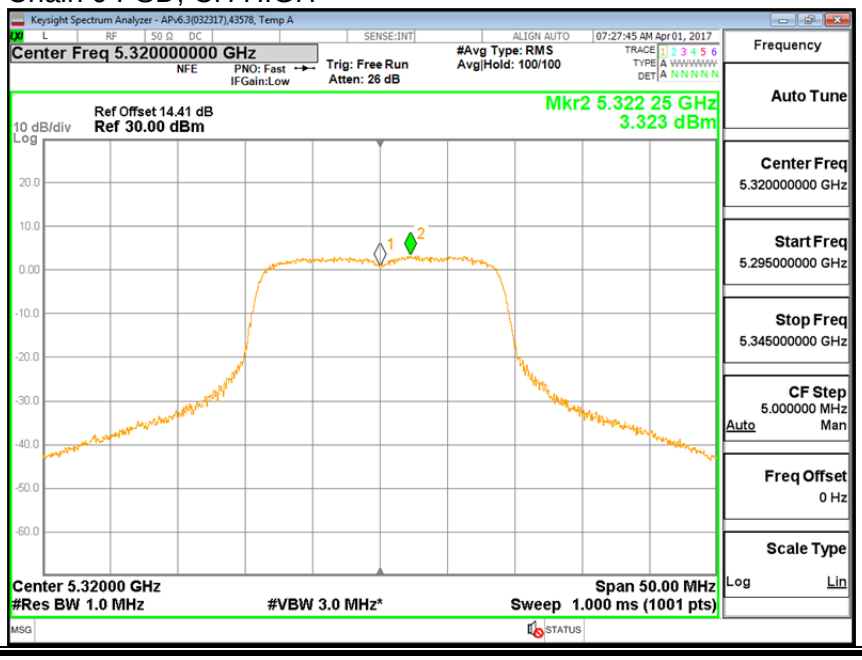
Chain 1 PSD, CH MID



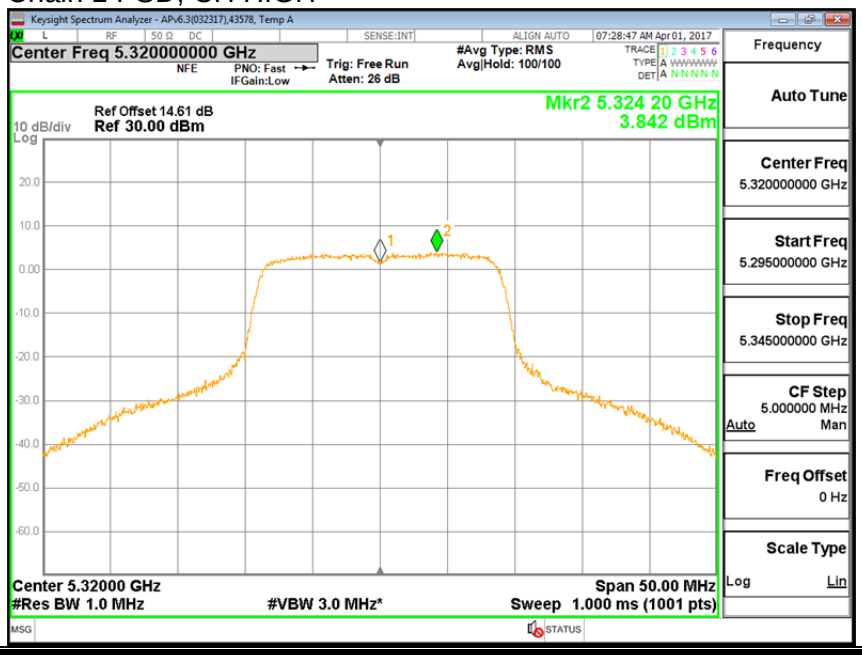
Chain 2 PSD, CH MID



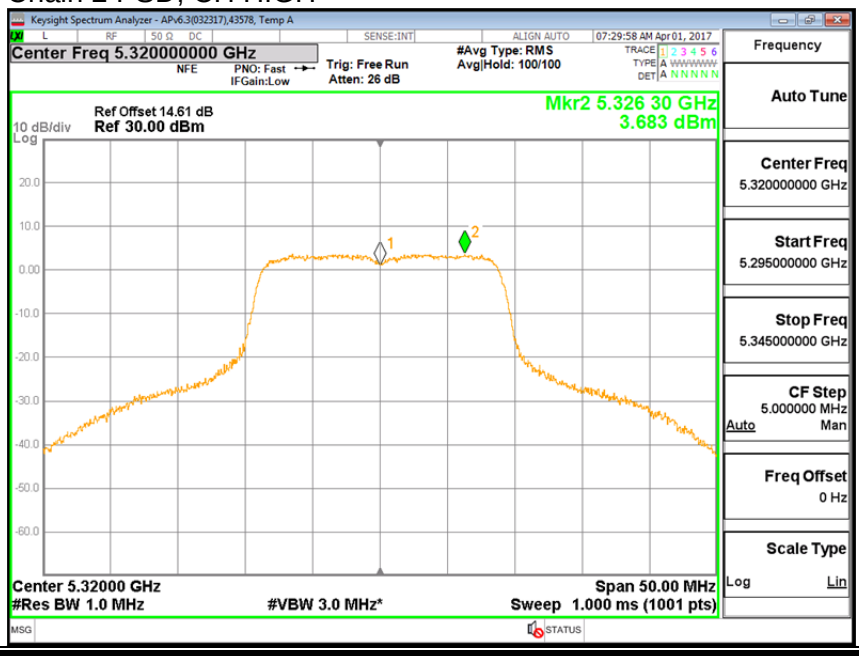
Chain 0 PSD, CH HIGH



Chain 1 PSD, CH HIGH



Chain 2 PSD, CH HIGH



9.6. 11n HT20 2TX CDD MIMO MODE IN THE 5.6GHz BAND

9.6.1. 26 dB BANDWIDTH

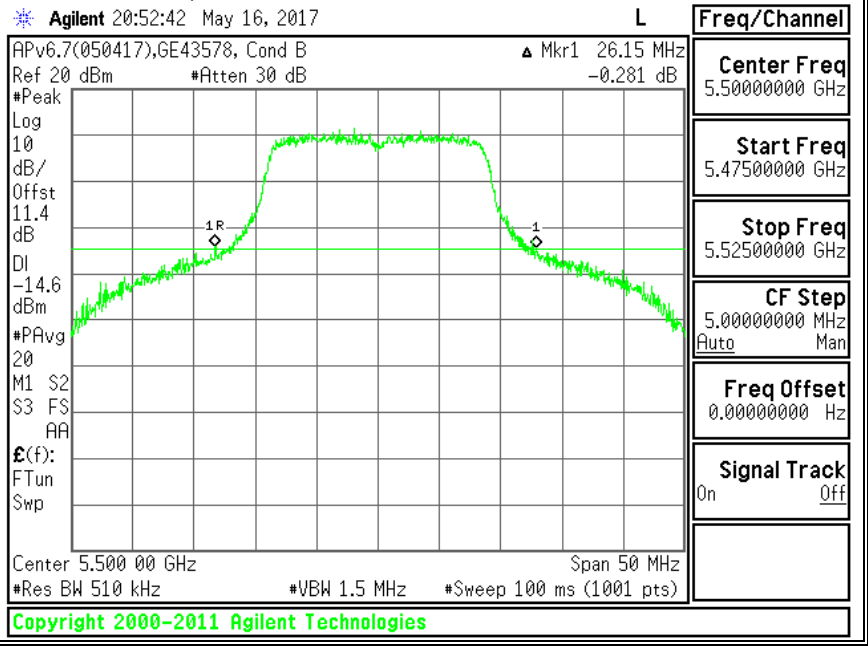
LIMITS

None; for reporting purposes only.

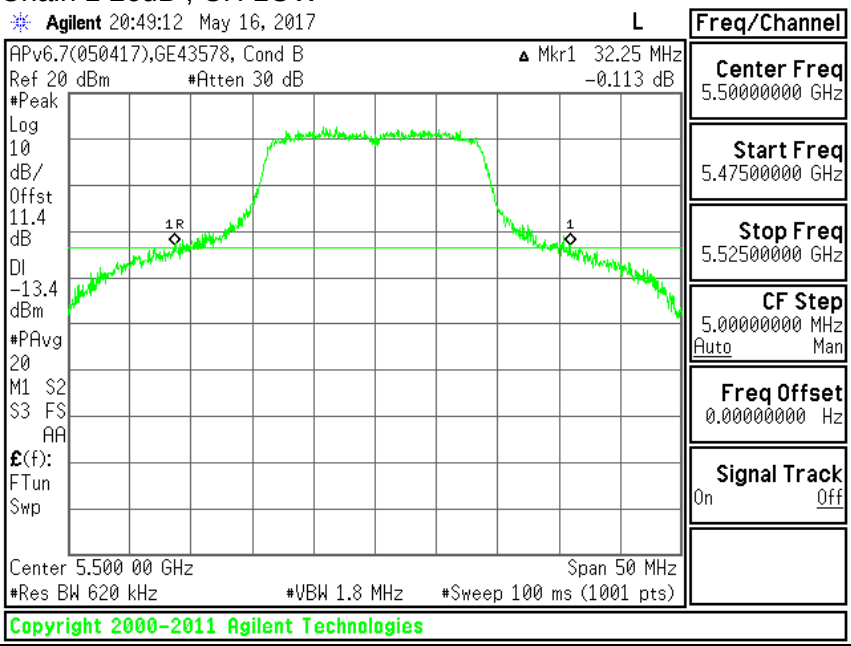
RESULTS

Channel	Frequency	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5500	26.15	32.25
Mid	5580	27.80	34.65
High	5700	25.40	34.85

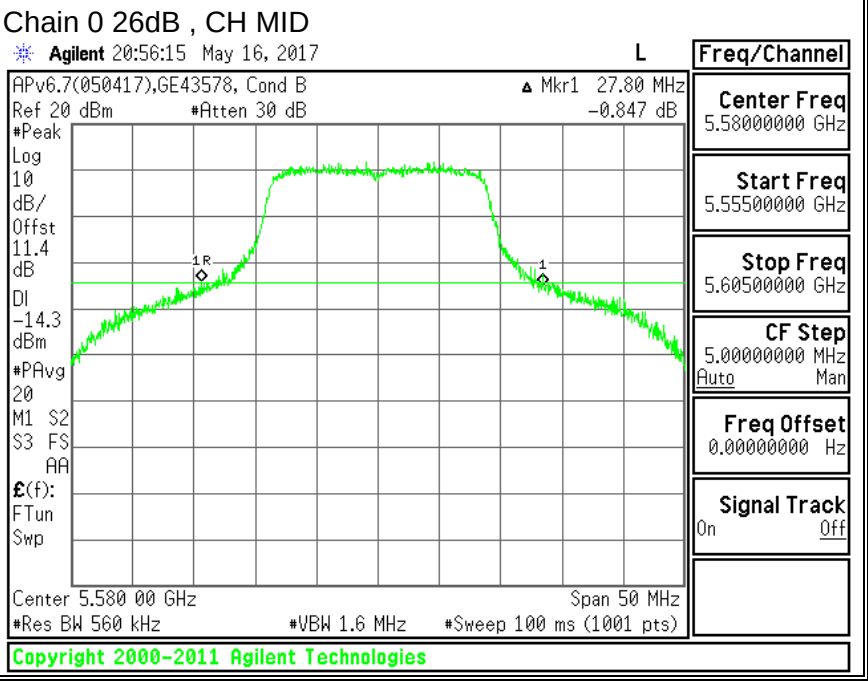
Chain 0 26dB , CH LOW



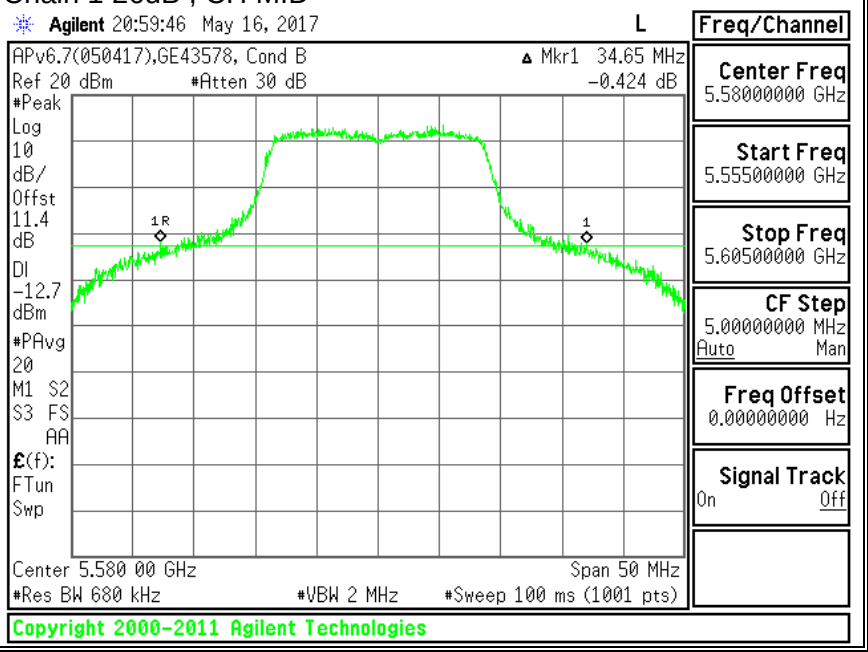
Chain 1 26dB , CH LOW



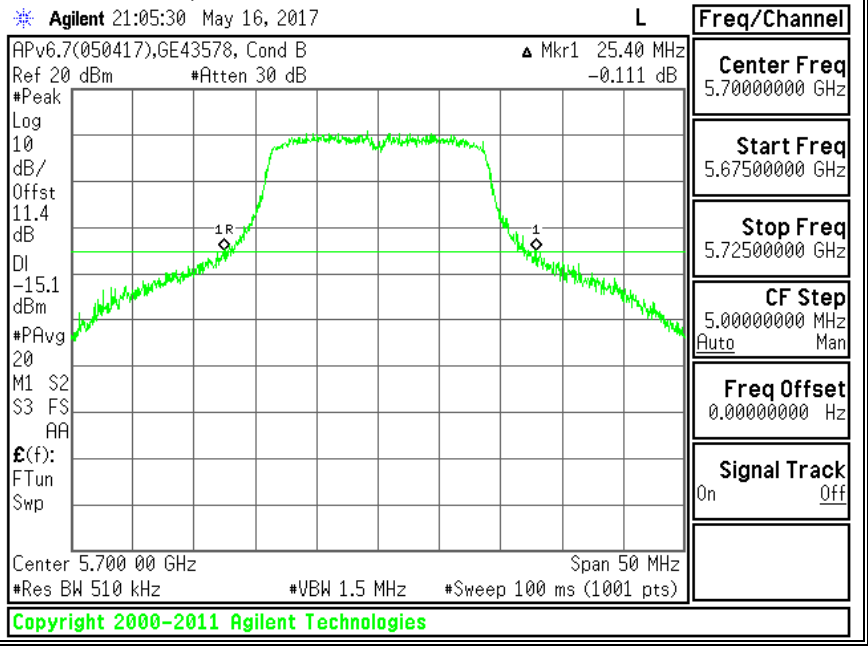
Chain 0 26dB , CH MID



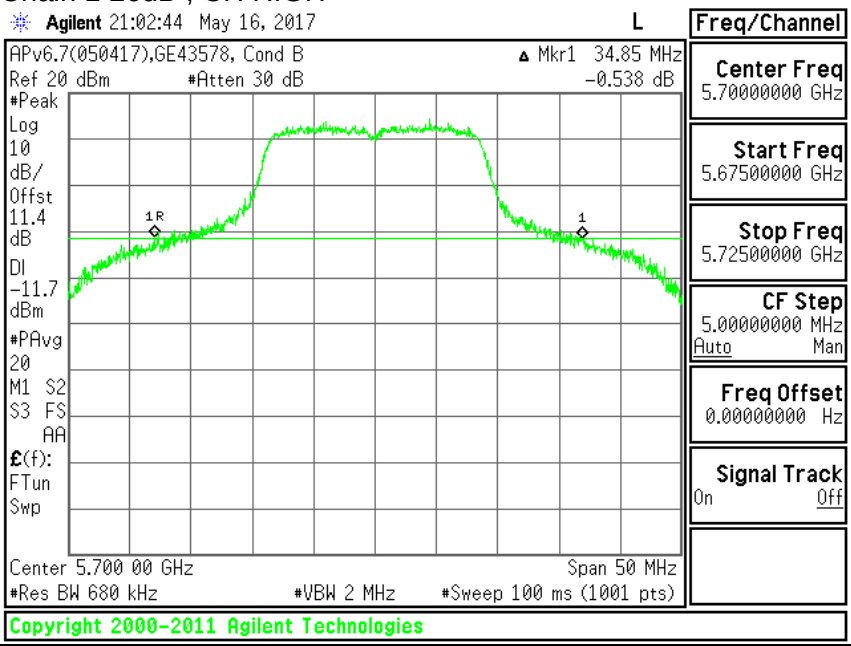
Chain 1 26dB , CH MID



Chain 0 26dB , CH HIGH



Chain 1 26dB , CH HIGH



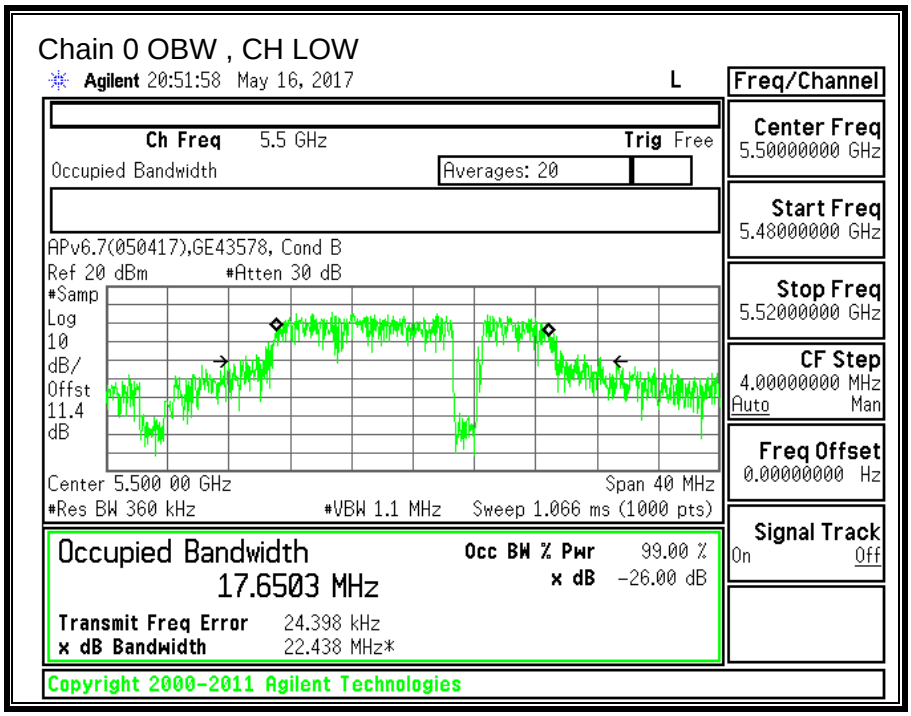
9.6.2. 99% BANDWIDTH

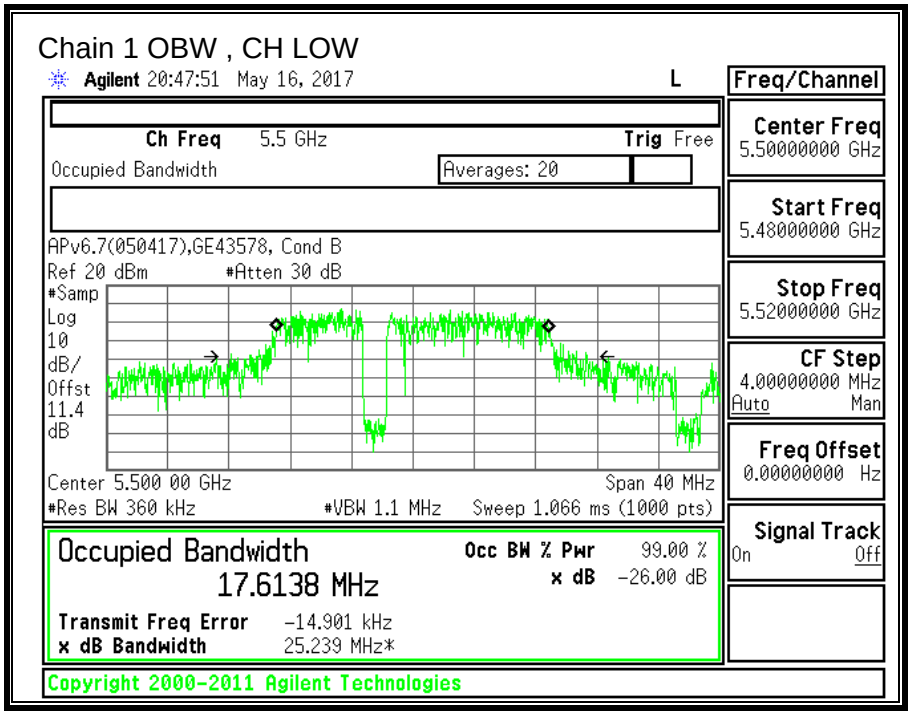
LIMITS

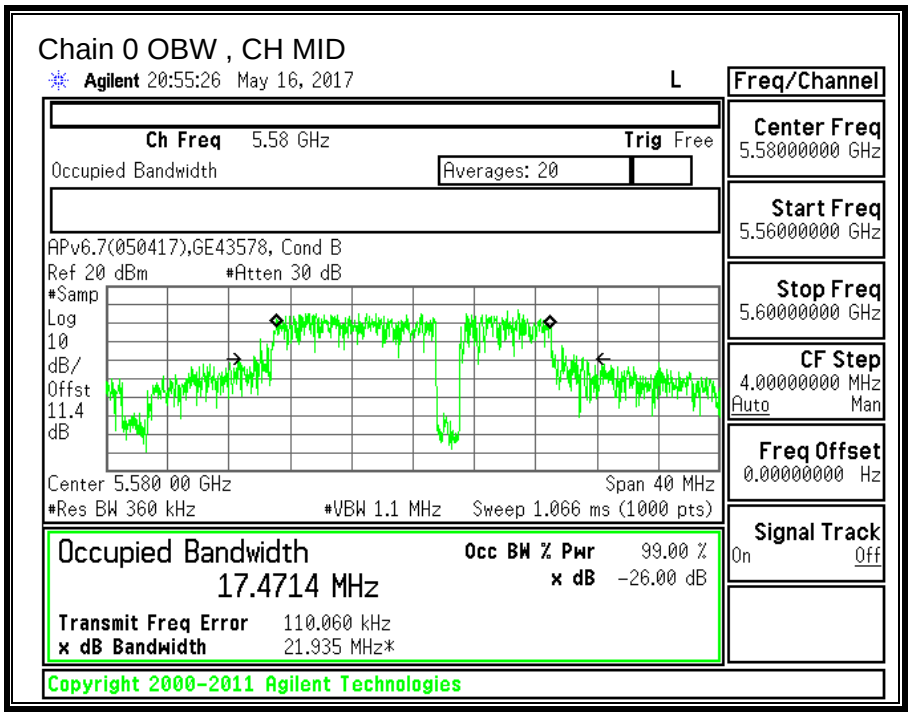
None; for reporting purposes only.

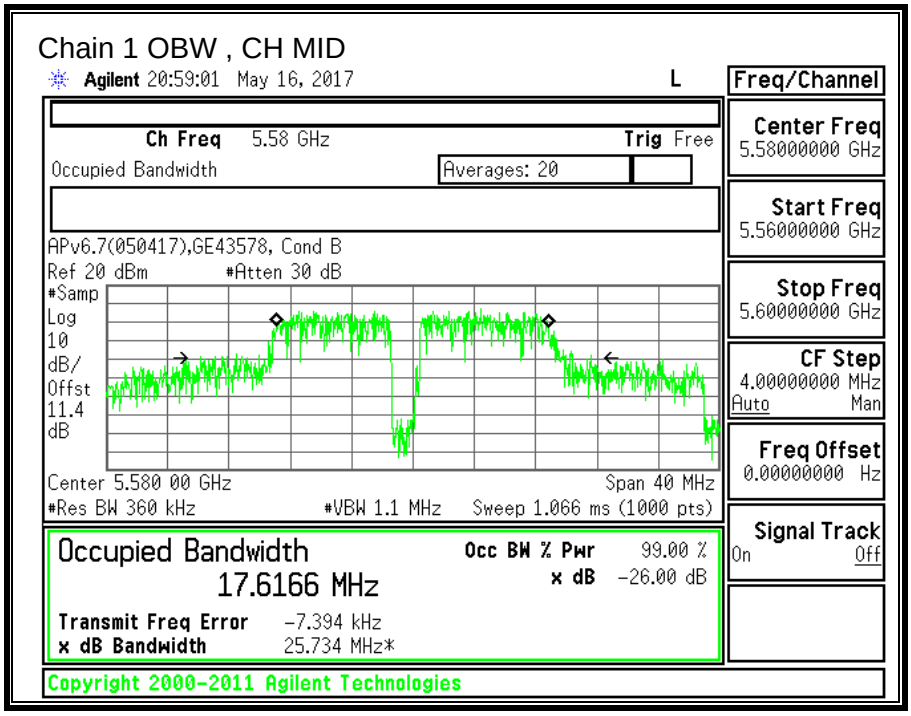
RESULTS

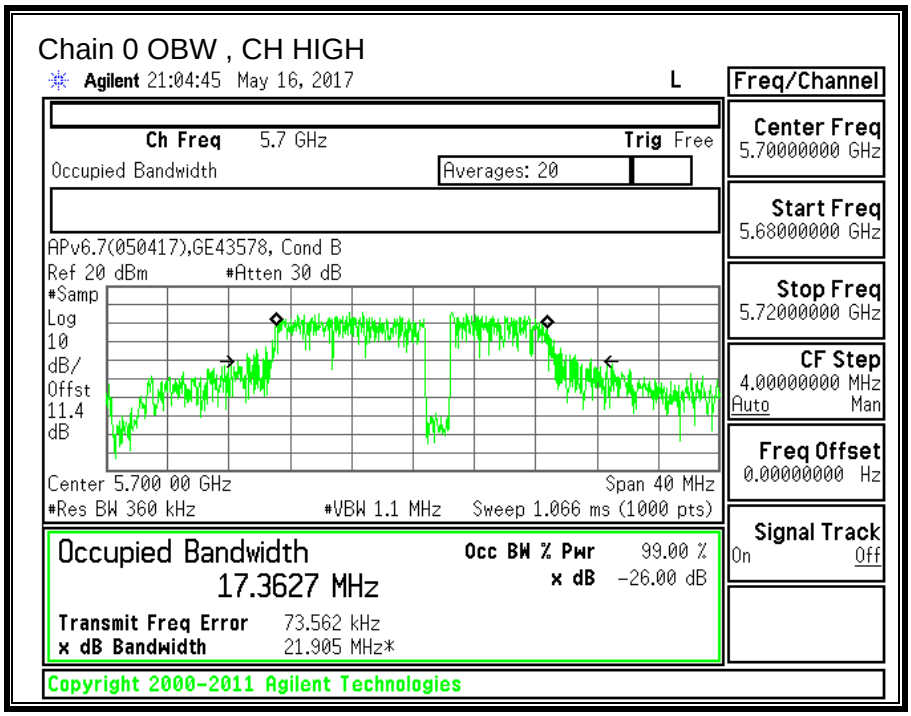
Channel	Frequency	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5500	17.6503	17.6138
Mid	5580	17.4714	17.6166
High	5700	17.3627	17.6284

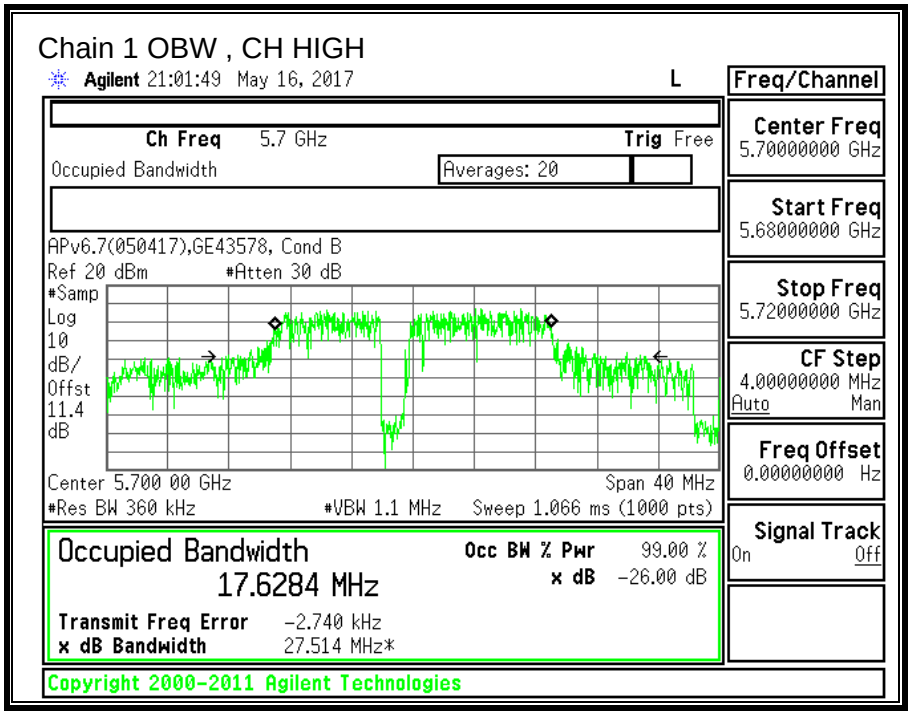












9.6.3. OUTPUT POWER AND PPSD

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 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.

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

For Power, 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)
3.41	2.26	2.87

For PSD, 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)
3.41	2.26	5.86

RESULTS

ID:	GE43578	Date:	5/16/17

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)
Low	5500	32.25	2.87	5.86	24.00	11.00
Mid	5600	34.65	2.87	5.86	24.00	11.00
High	5700	34.85	2.87	5.86	24.00	11.00

Duty Cycle CF (dB)	0.37	Included in Calculations of Corr'd PSD

Output Power Results

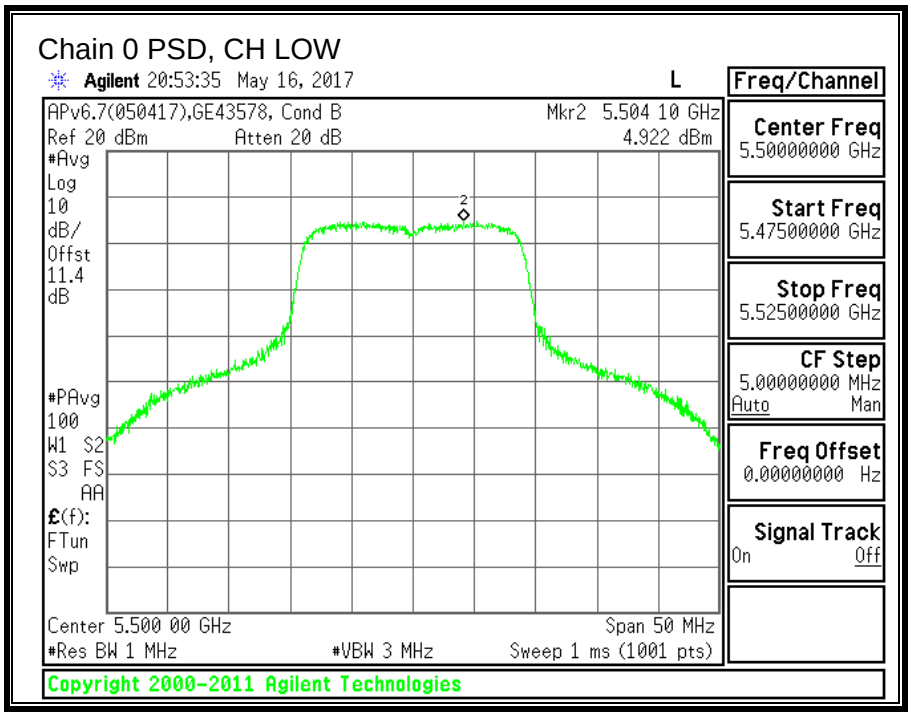
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	16.34	17.35	19.88	24.00	-4.12
Mid	5600	16.54	17.30	19.95	24.00	-4.05
High	5700	16.41	17.78	20.16	24.00	-3.84

PSD Results

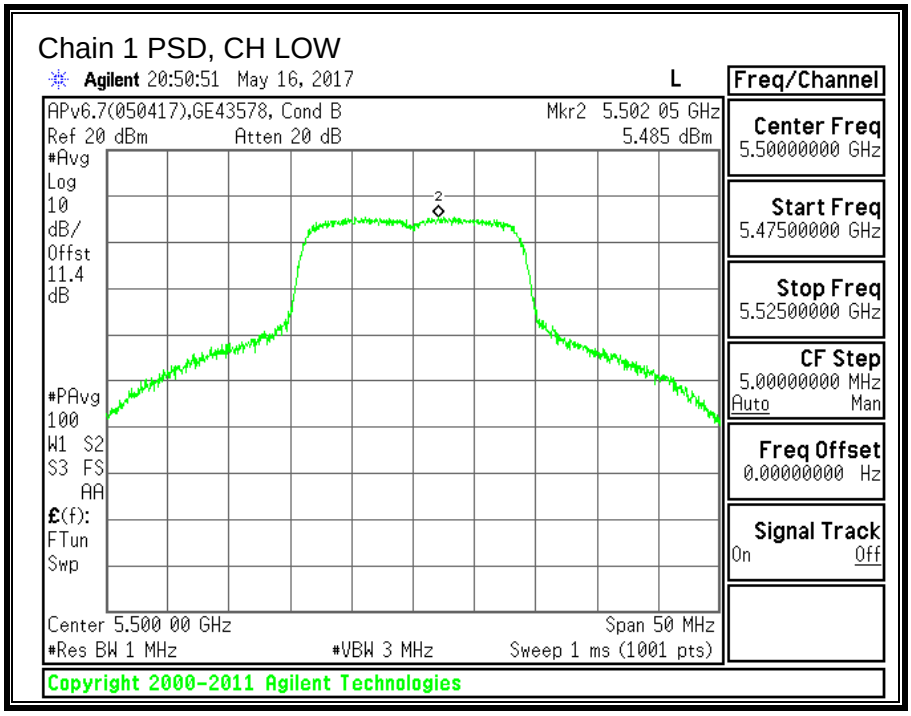
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	4.922	5.485	8.59	11.00	-2.41
Mid	5600	5.263	5.713	8.87	11.00	-2.13
High	5700	4.833	6.029	8.85	11.00	-2.15

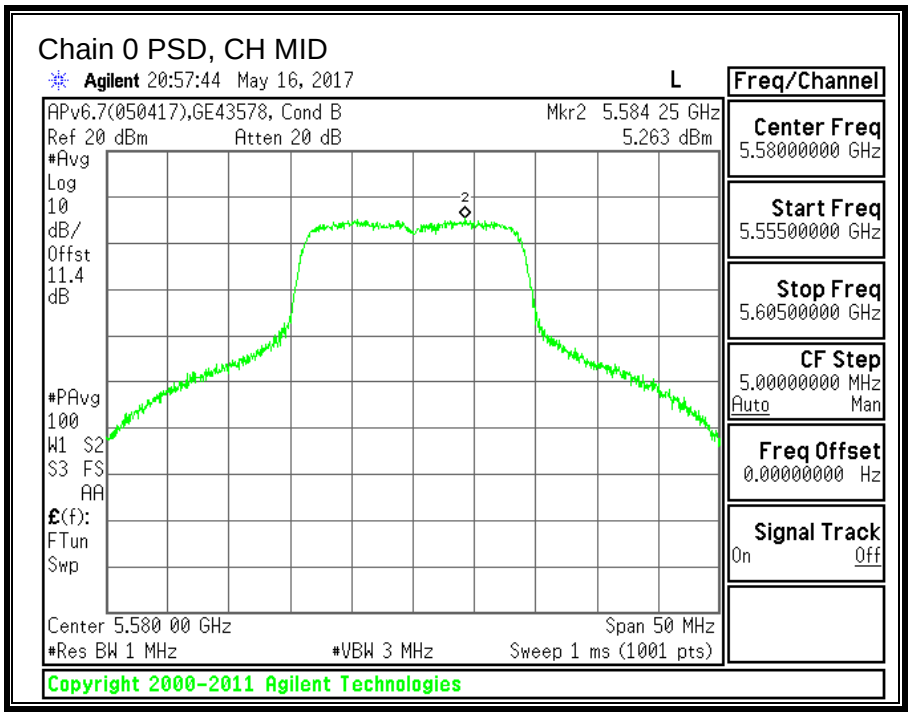
Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

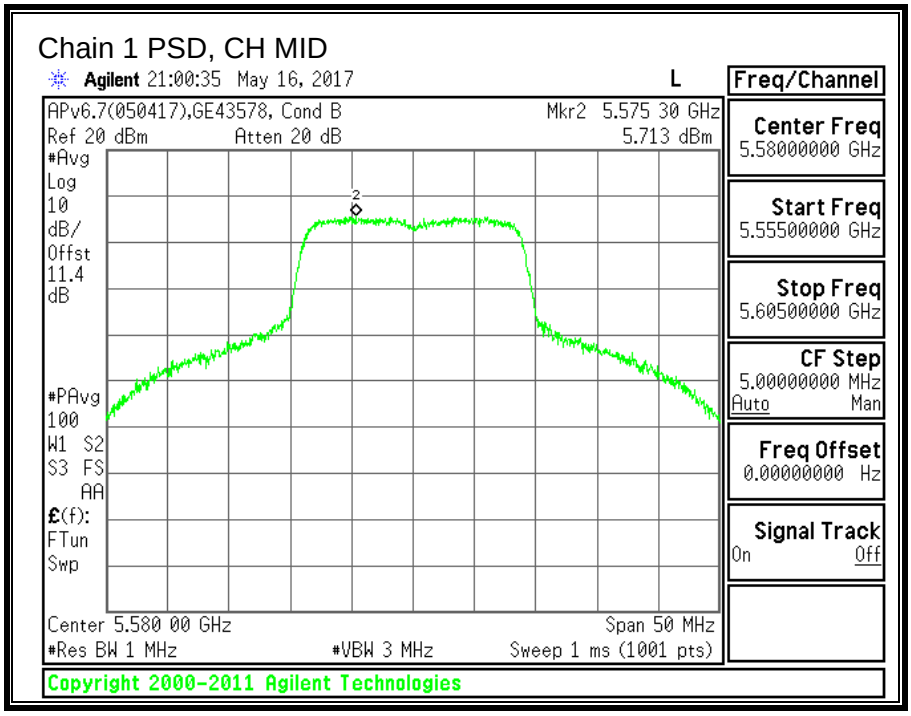
Chain 0 PSD, CH LOW

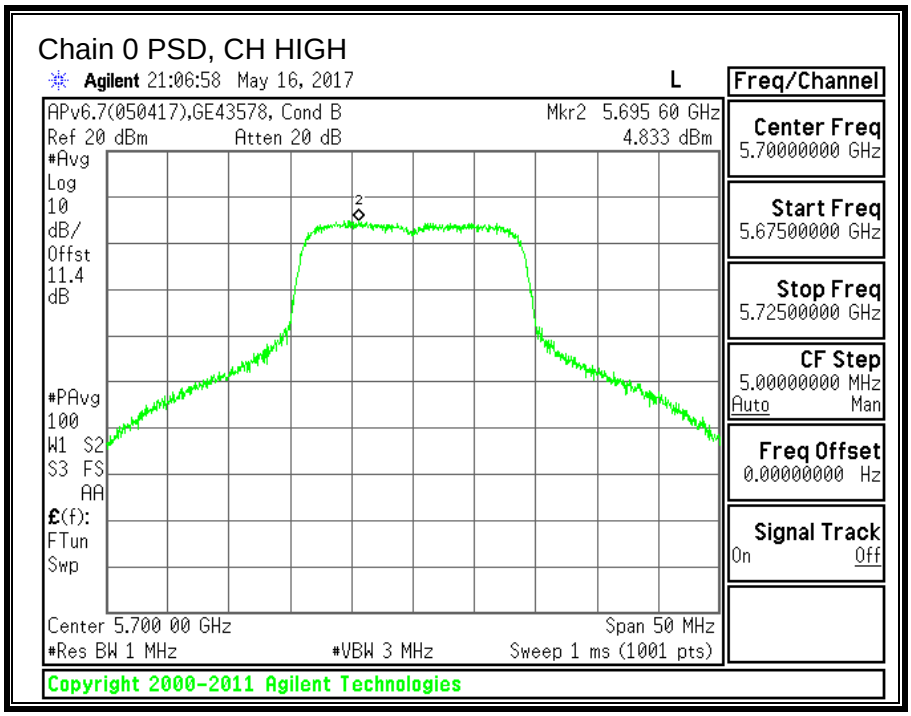


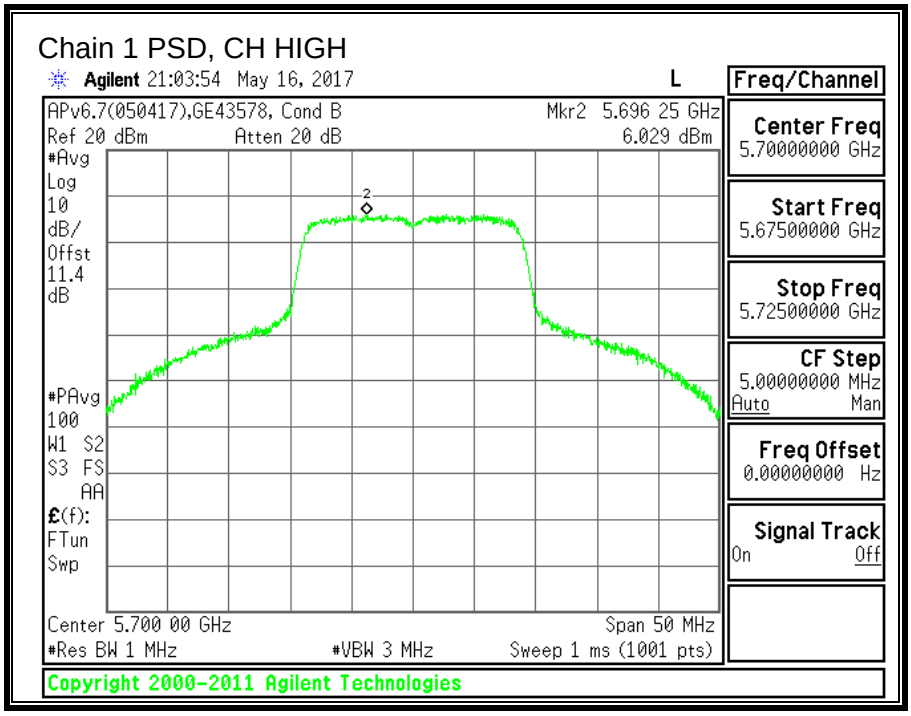
Chain 1 PSD, CH LOW











9.7. 11n HT20 3TX CDD MIMO MODE IN THE 5.6GHz BAND

9.7.1. 26 dB BANDWIDTH

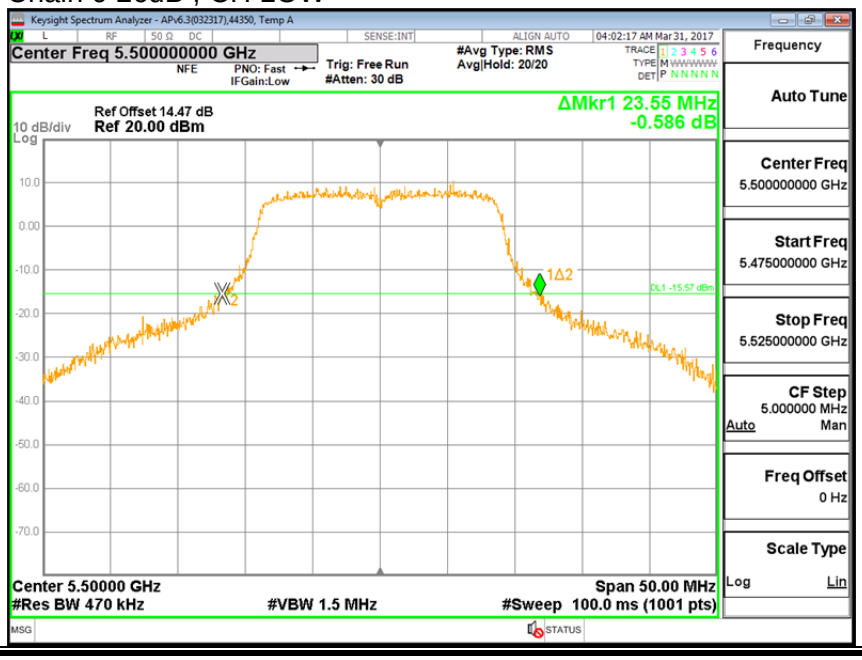
LIMITS

None; for reporting purposes only.

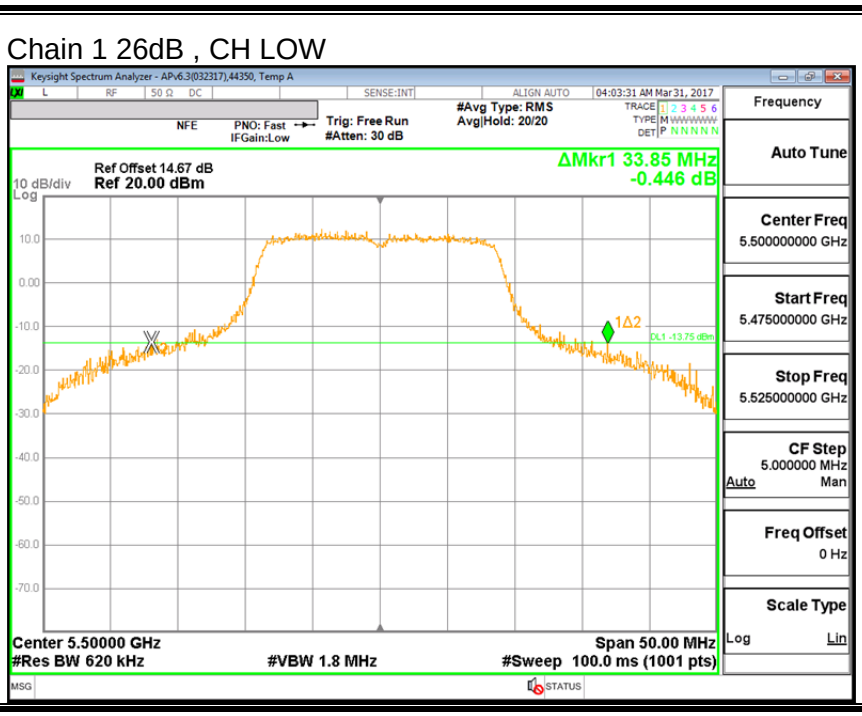
RESULTS

Channel	Frequency	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)	26 dB BW Chain 2 (MHz)
Low	5500	23.55	33.85	28.00
Mid	5580	32.45	38.60	41.60
High	5700	24.15	26.40	25.70

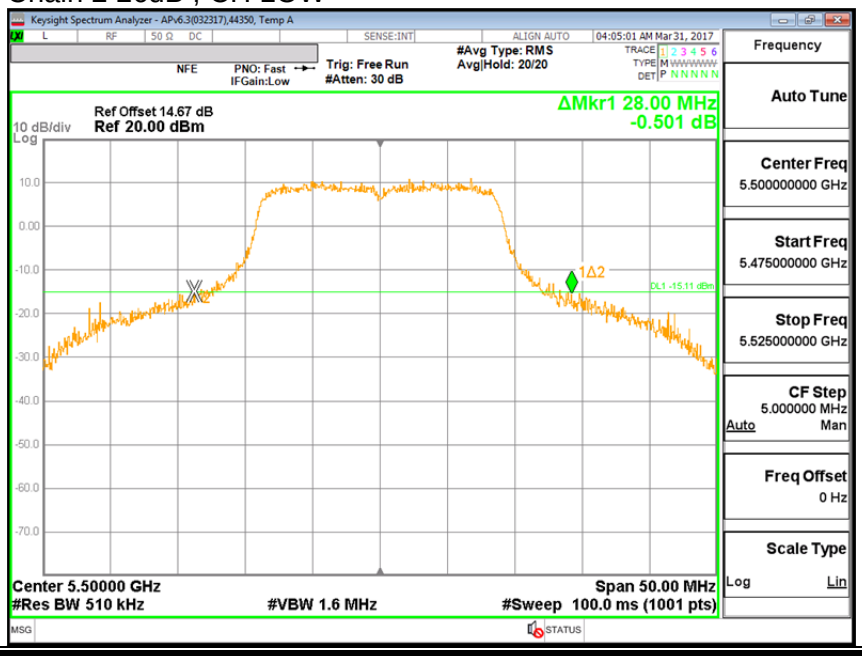
Chain 0 26dB , CH LOW



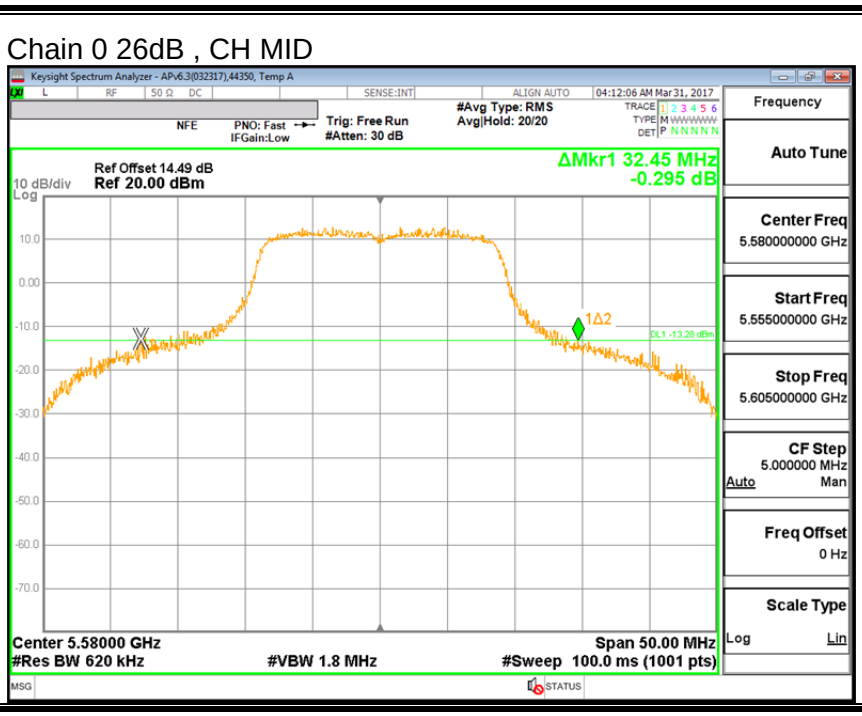
Chain 1 26dB , CH LOW



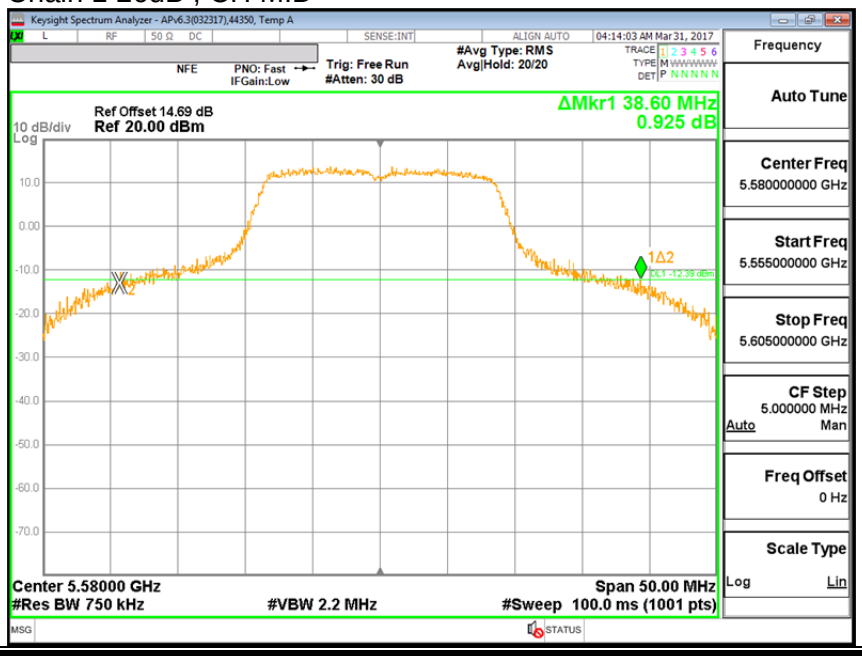
Chain 2 26dB , CH LOW



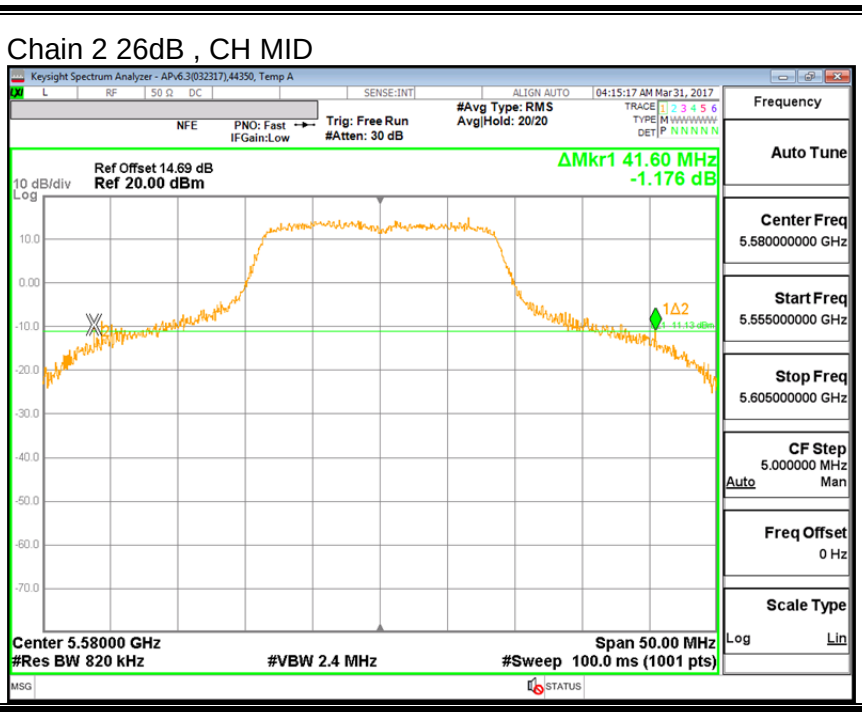
Chain 0 26dB , CH MID



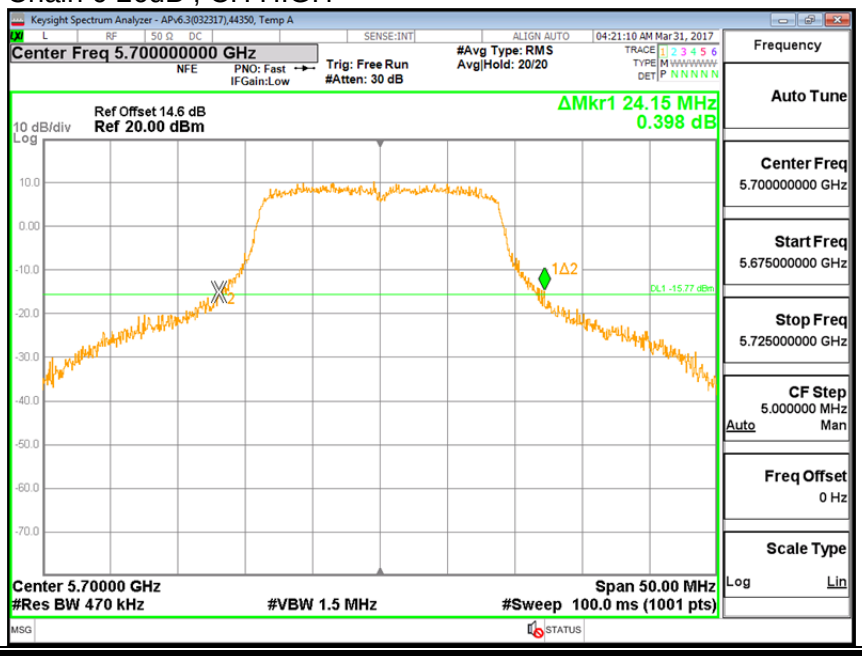
Chain 1 26dB , CH MID



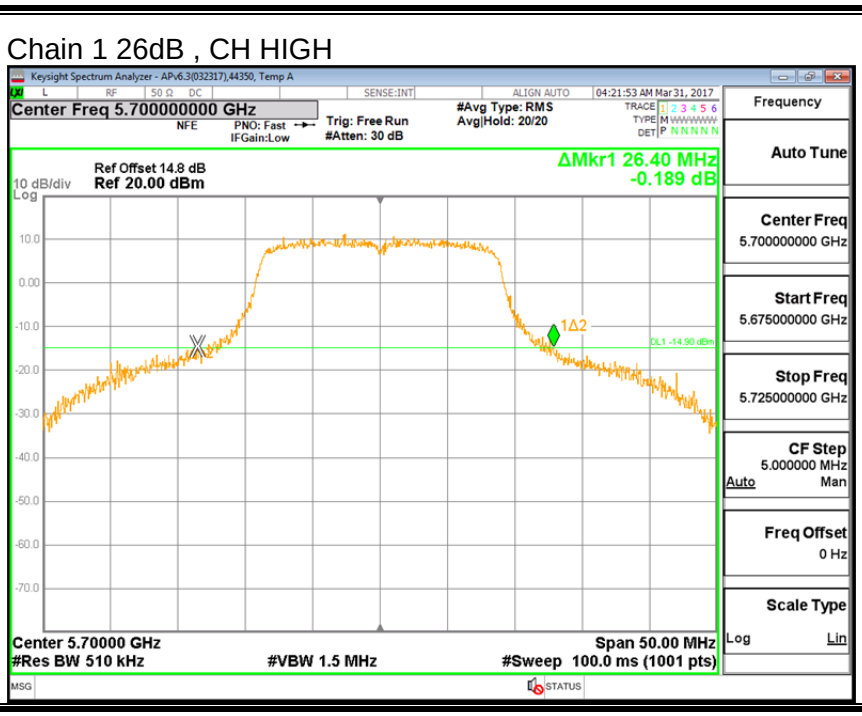
Chain 2 26dB , CH MID



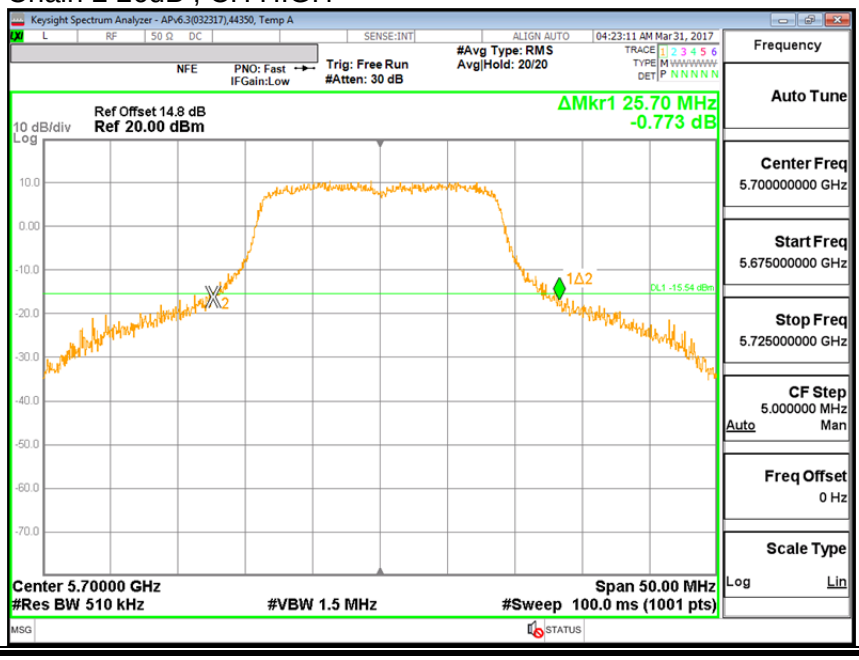
Chain 0 26dB , CH HIGH



Chain 1 26dB , CH HIGH



Chain 2 26dB , CH HIGH



9.7.2. 99% BANDWIDTH

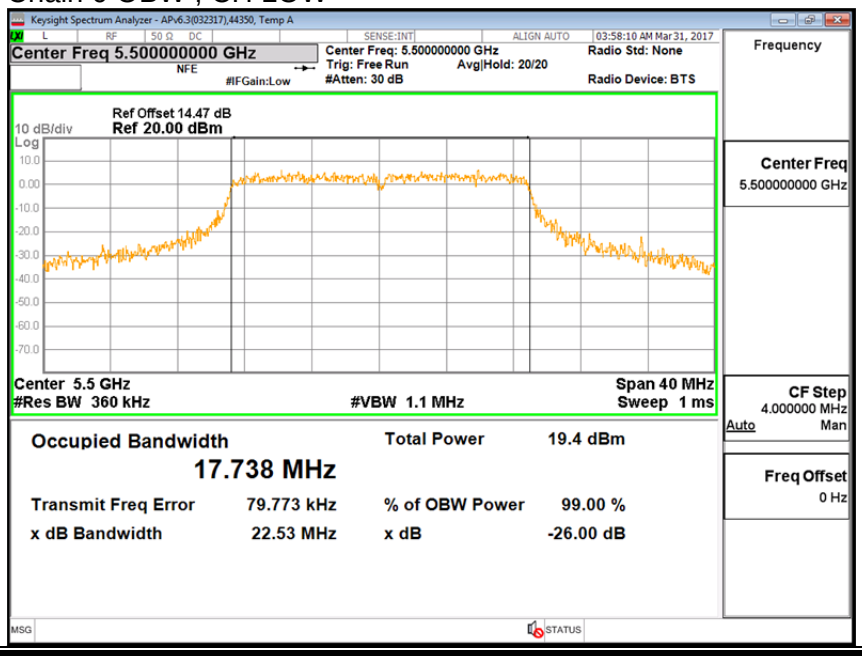
LIMITS

None; for reporting purposes only.

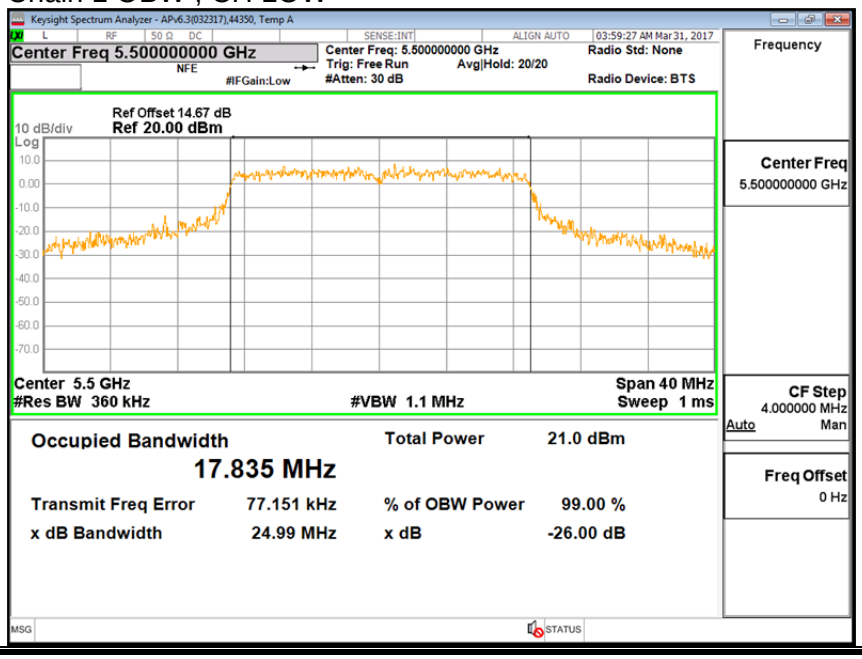
RESULTS

Channel	Frequency	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)	99% BW Chain 2 (MHz)
Low	5500	17.738	17.835	17.787
Mid	5580	17.815	17.941	17.899
High	5700	17.811	17.874	17.764

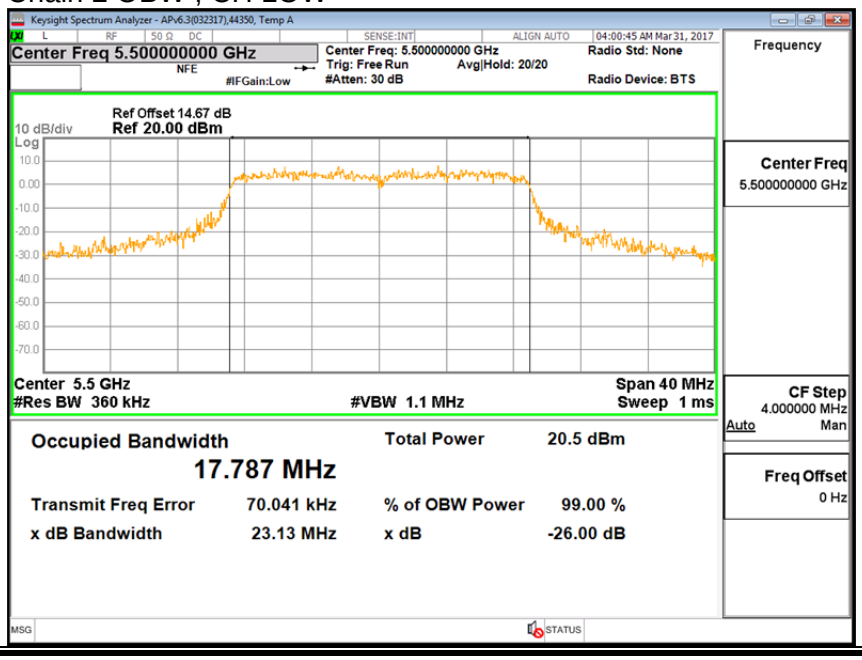
Chain 0 OBW , CH LOW



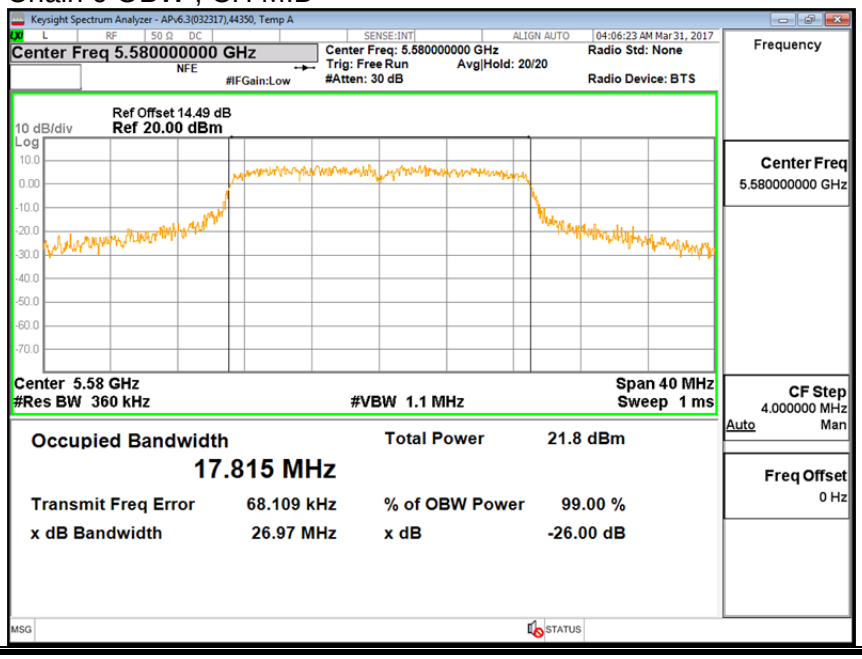
Chain 1 OBW , CH LOW



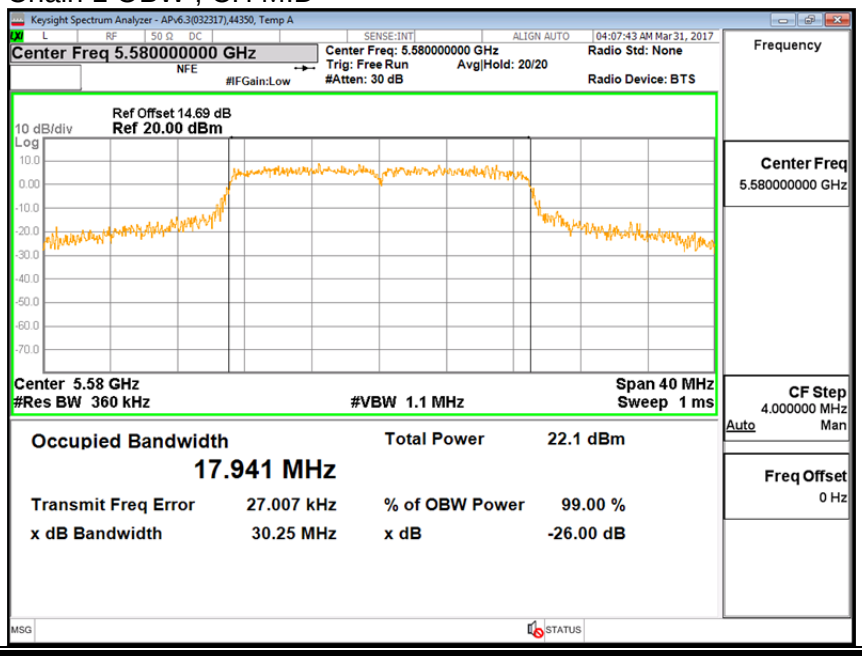
Chain 2 OBW , CH LOW



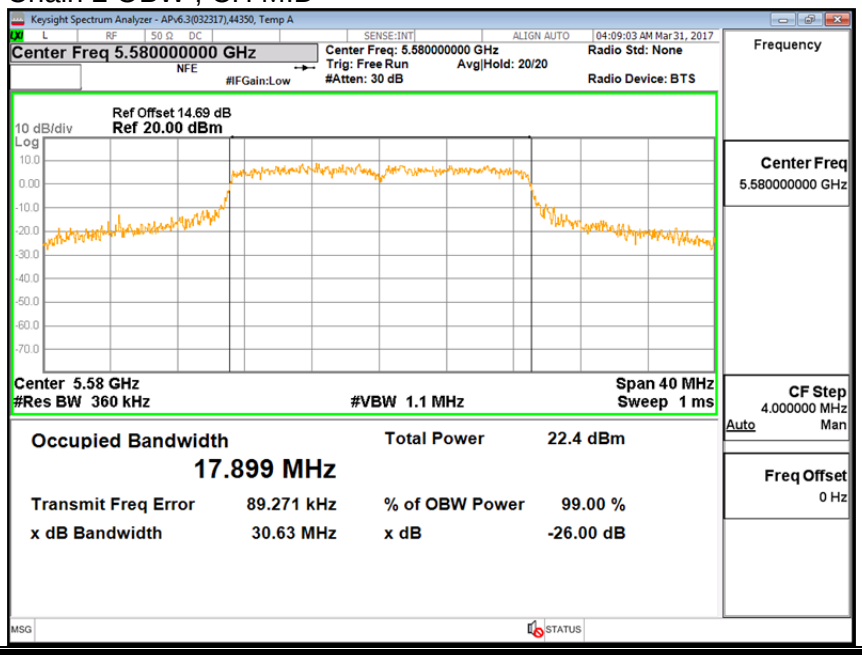
Chain 0 OBW , CH MID



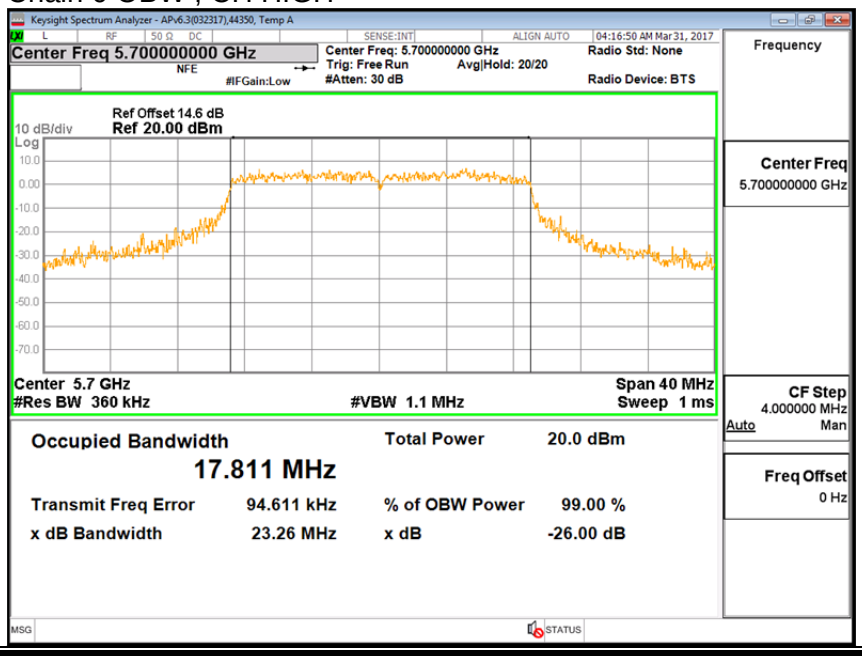
Chain 1 OBW , CH MID



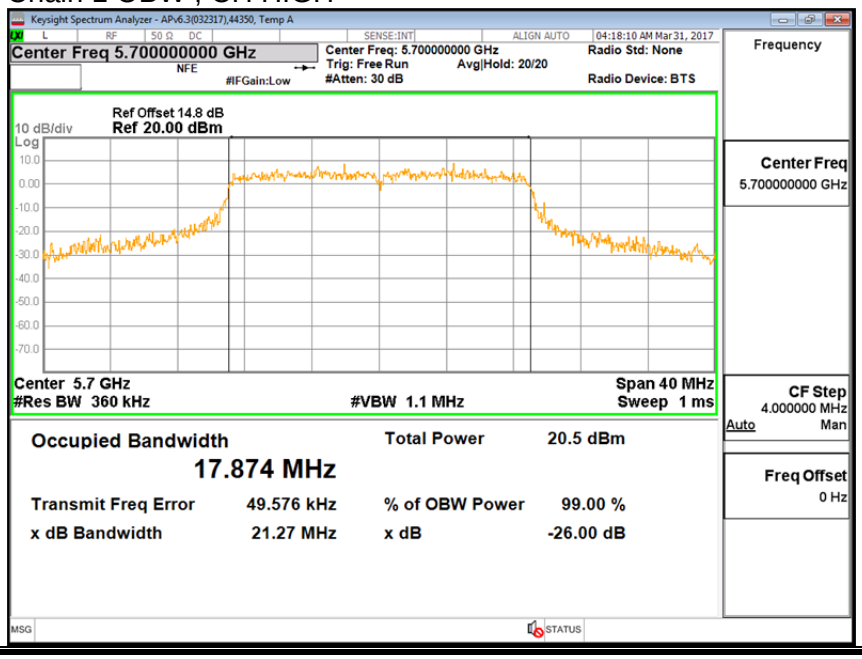
Chain 2 OBW , CH MID



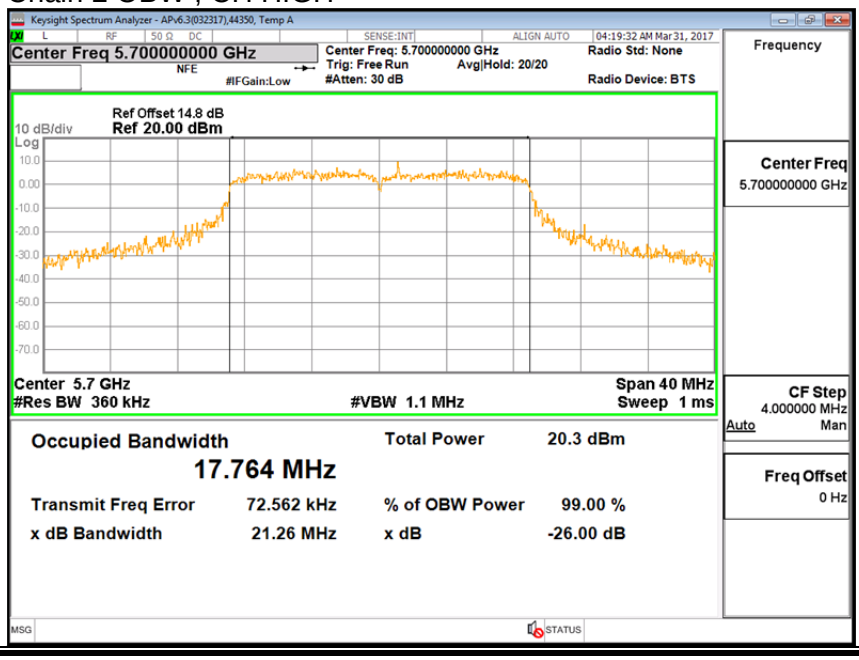
Chain 0 OBW , CH HIGH



Chain 1 OBW , CH HIGH



Chain 2 OBW , CH HIGH



9.7.3. OUTPUT POWER AND PPSD

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 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.

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

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Uncorrelated Chains Directional Gain (dBi)
3.41	2.26	4.22	3.37

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

Chain 0 Antenna Gain (dBi)	Chain 1 Antenna Gain (dBi)	Chain 2 Antenna Gain (dBi)	Correlated Chains Directional Gain (dBi)
3.41	2.26	4.22	8.10

RESULTS

ID:	GE43578	Date:	5/16/17

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)
Low	5500	33.85	3.37	8.10	24.00	8.90
Mid	5600	41.60	3.37	8.10	24.00	8.90
High	5700	26.40	3.37	8.10	24.00	8.90

Duty Cycle CF (dB)	0.37	Included in Calculations of Corr'd Power & PSD

Output Power Results

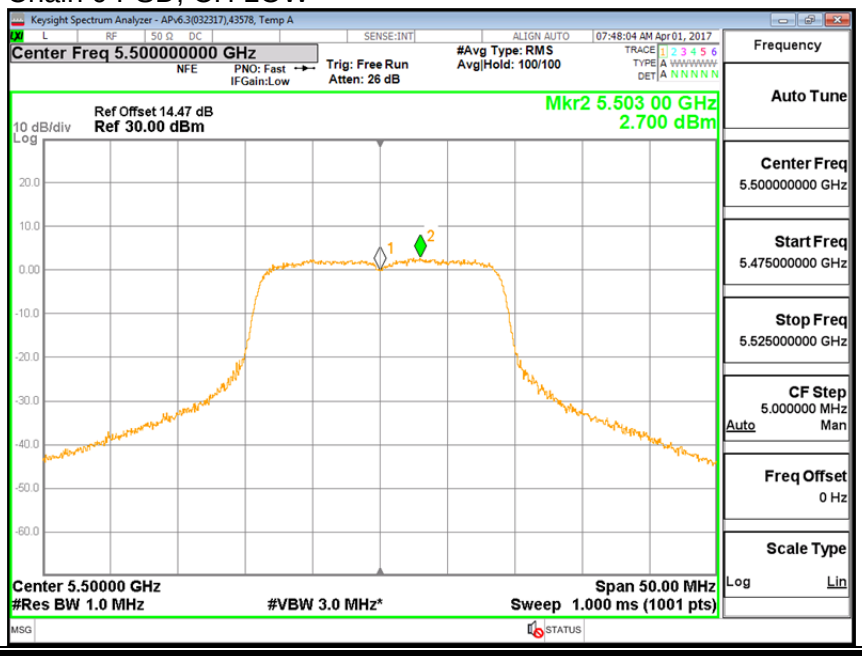
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Chain 2 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5500	14.28	15.07	14.88	19.90	24.00	-4.10
Mid	5600	14.32	15.05	14.59	19.81	24.00	-4.19
High	5700	13.05	13.96	13.78	18.76	24.00	-5.24

PSD Results

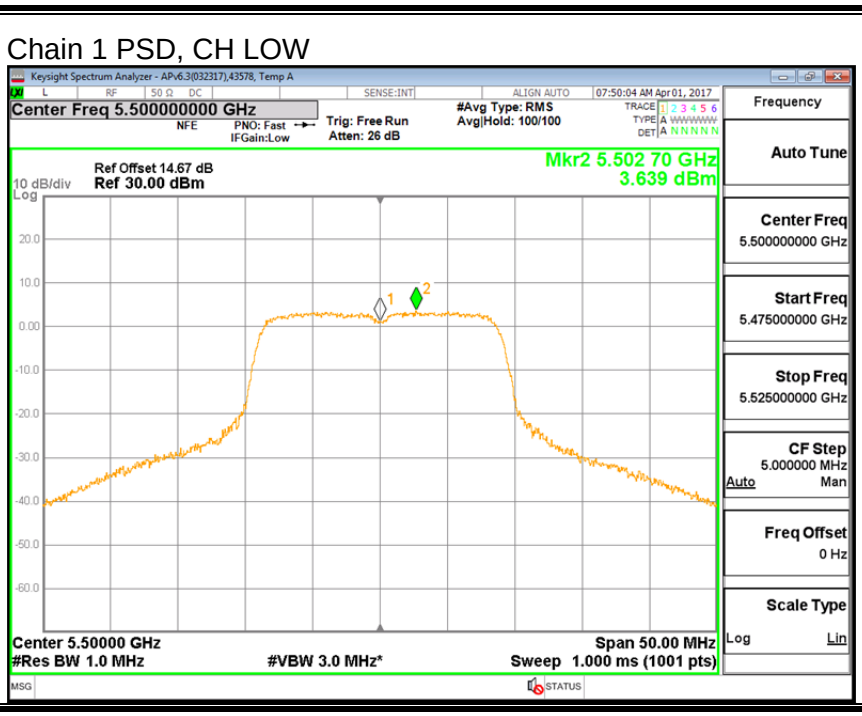
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Chain 2 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5500	2.700	3.639	3.527	8.45	8.90	-0.45
Mid	5600	2.969	3.903	3.669	8.67	8.90	-0.23
High	5700	2.798	3.696	3.519	8.50	8.90	-0.40

Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

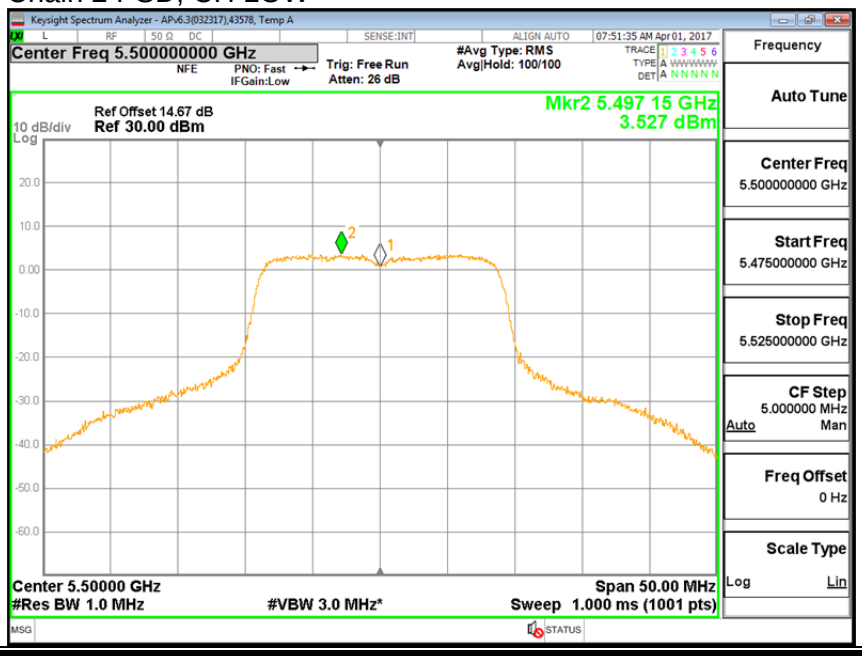
Chain 0 PSD, CH LOW



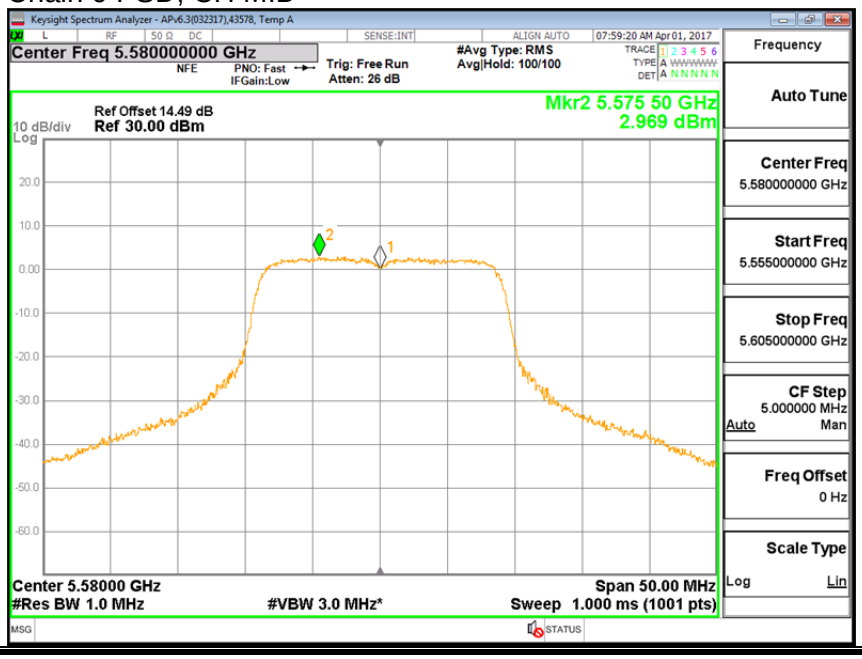
Chain 1 PSD, CH LOW



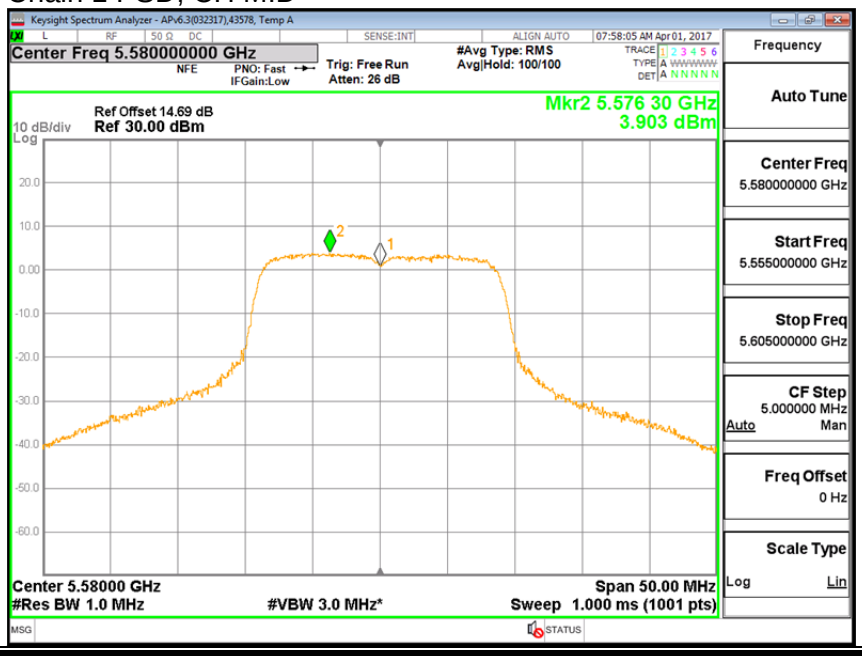
Chain 2 PSD, CH LOW



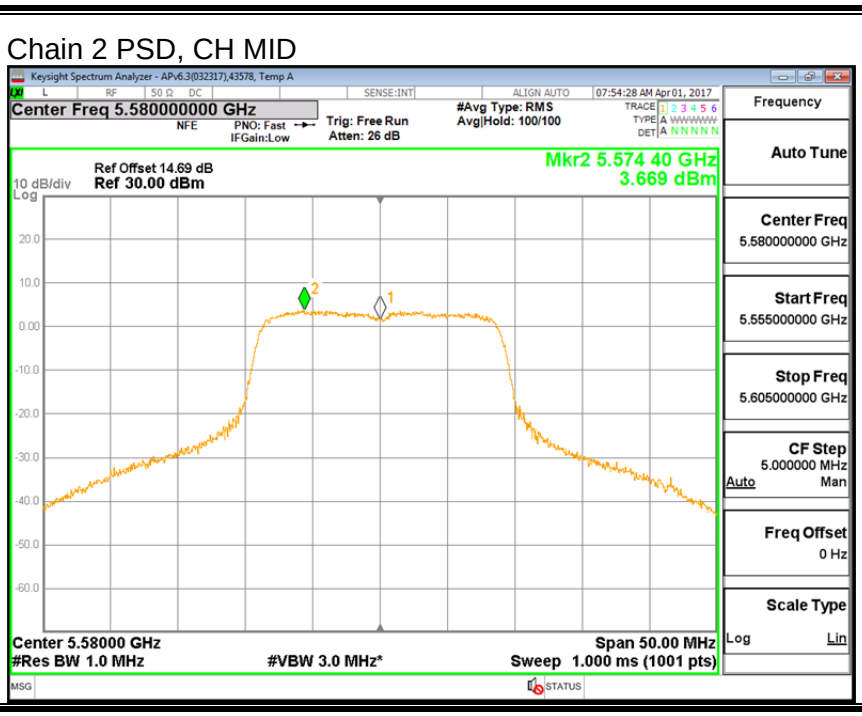
Chain 0 PSD, CH MID



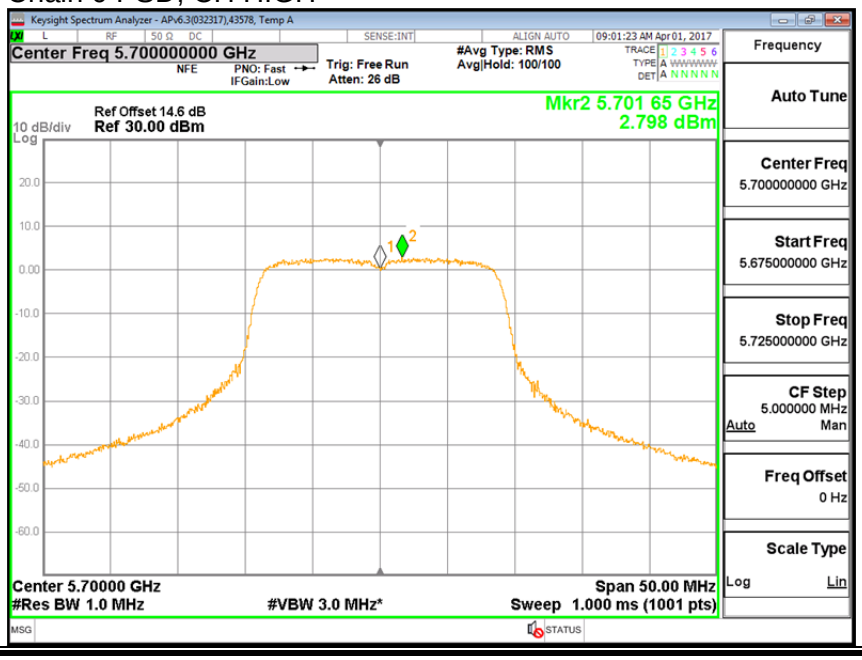
Chain 1 PSD, CH MID



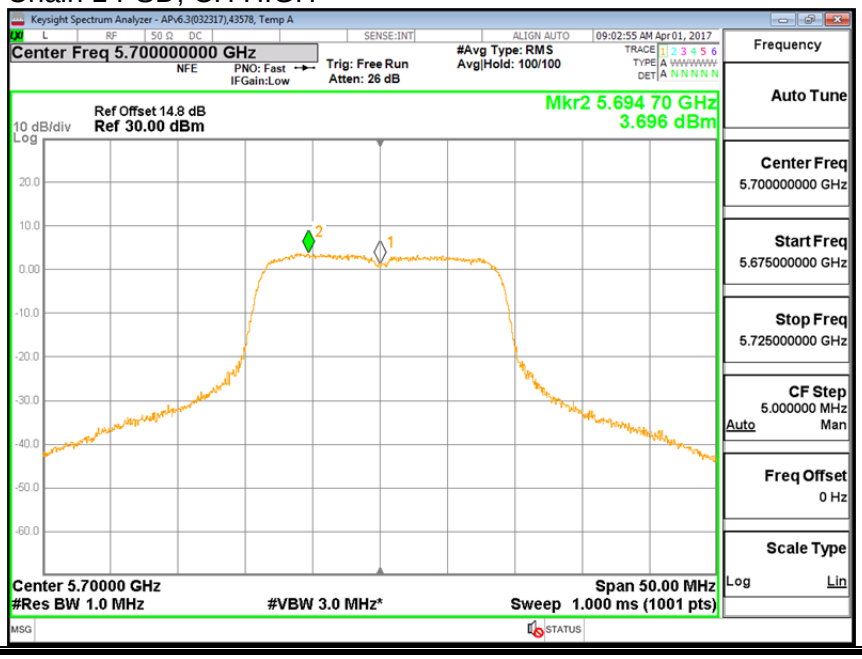
Chain 2 PSD, CH MID



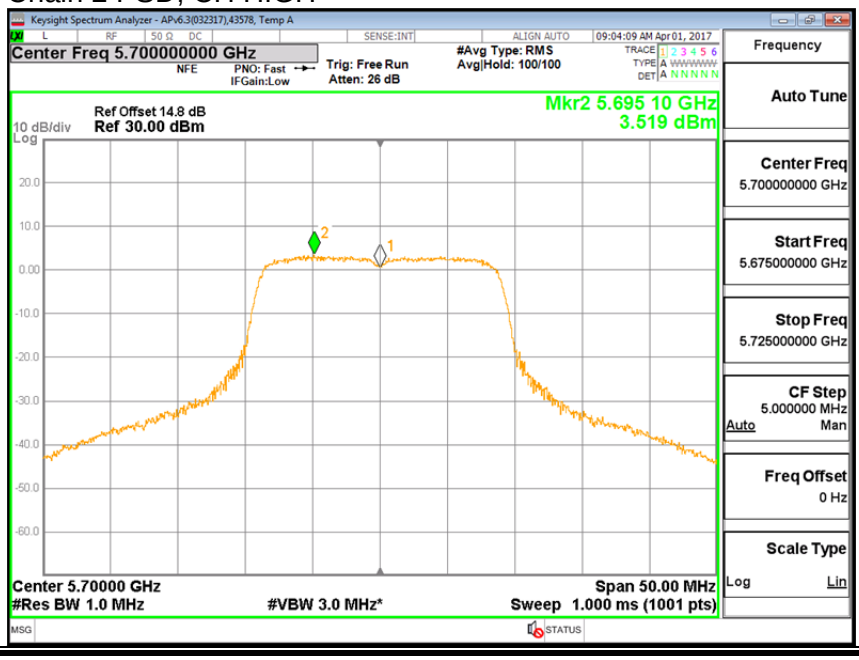
Chain 0 PSD, CH HIGH



Chain 1 PSD, CH HIGH



Chain 2 PSD, CH HIGH



9.8. 11n HT20 2TX CDD MIMO MODE IN THE 5.8GHz BAND

9.8.1. 6 dB BANDWIDTH

LIMITS

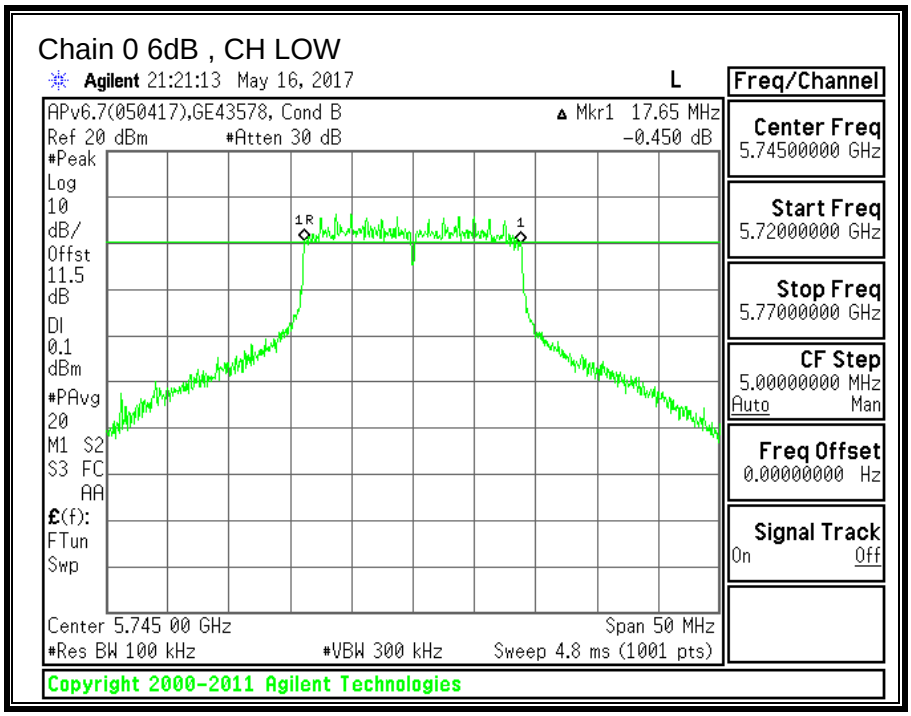
FCC §15.407 (e)

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

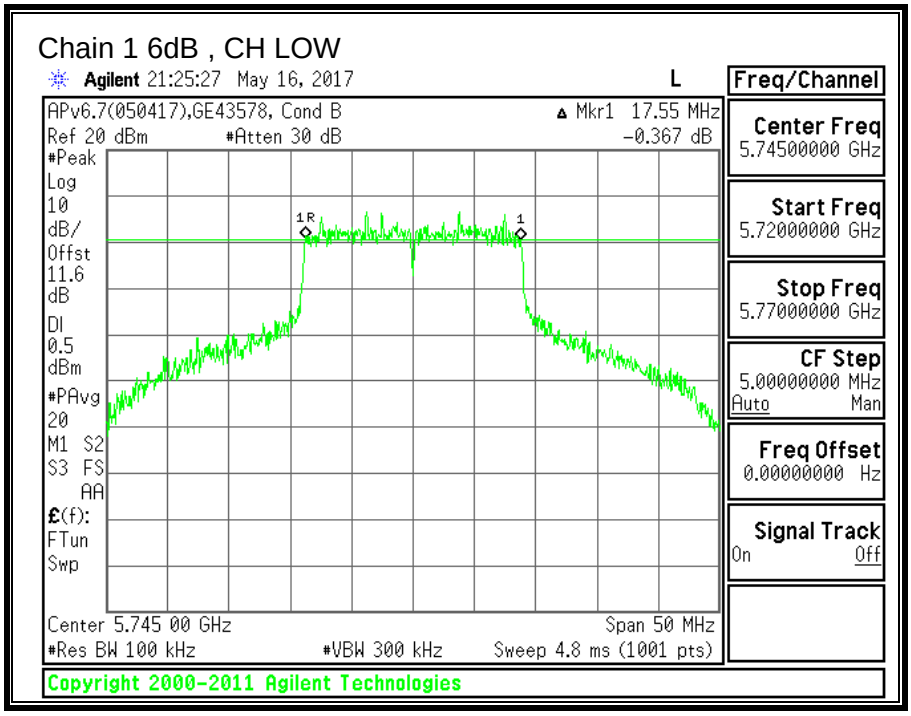
RESULTS

Channel	Frequency	6 dB BW Chain 0 (MHz)	6 dB BW Chain 1 (MHz)	Minimum Limit (MHz)
Low	5745	17.65	17.55	0.5
Mid	5785	17.55	17.60	0.5
High	5825	17.60	17.55	0.5

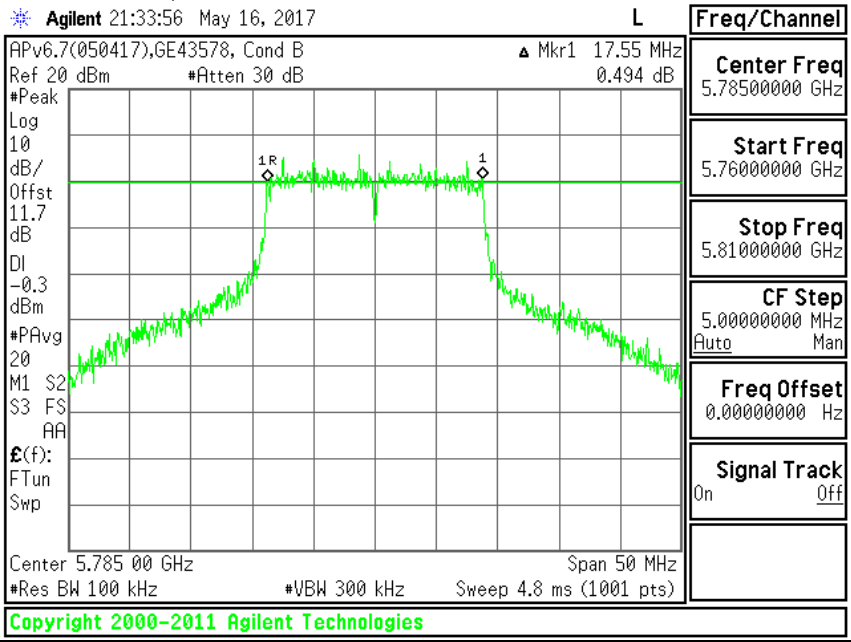
Chain 0 6dB , CH LOW



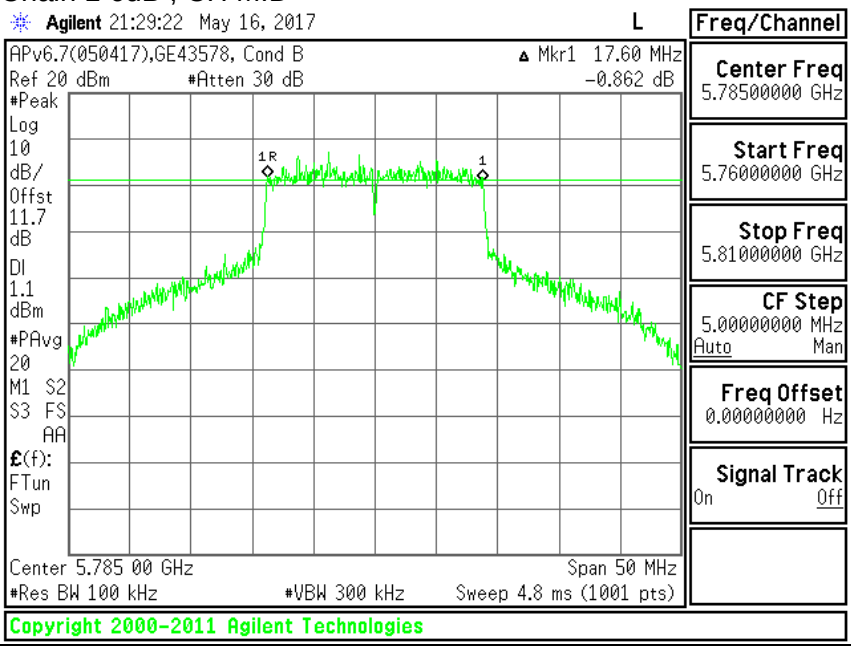
Chain 1 6dB , CH LOW

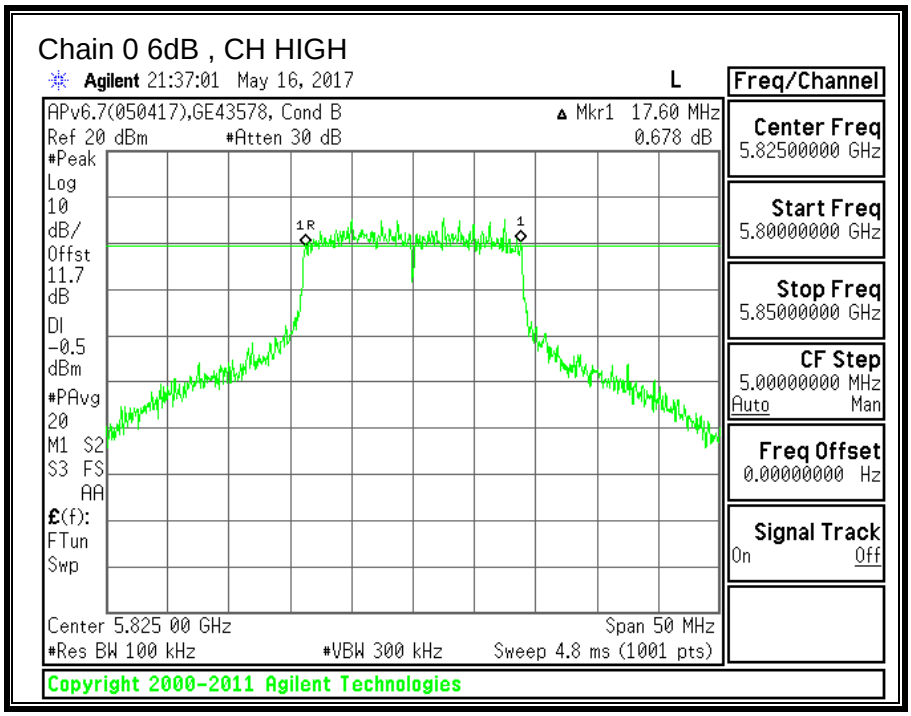


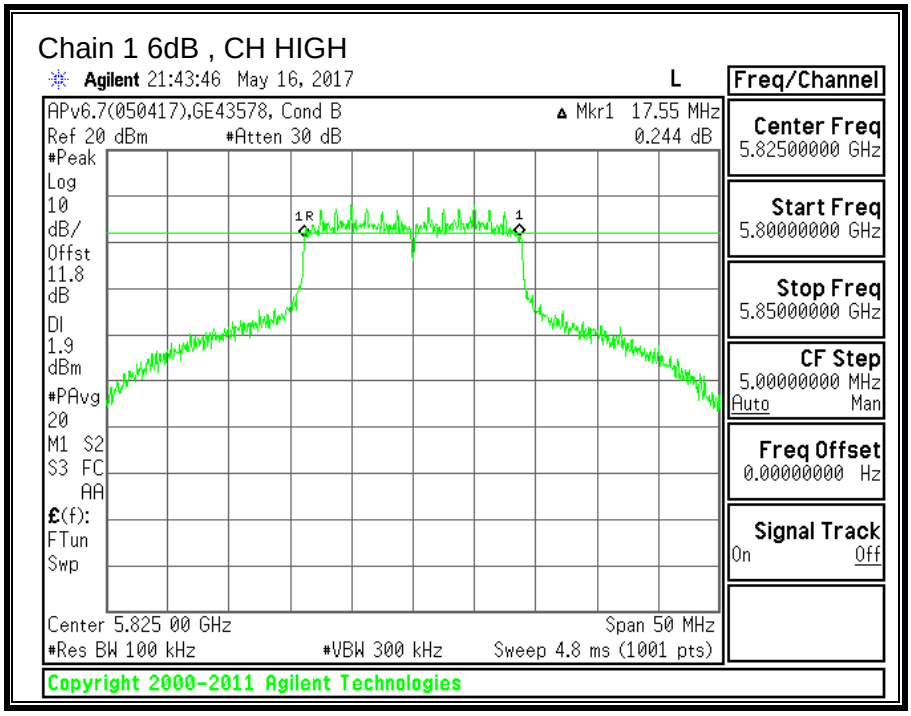
Chain 0 6dB , CH MID



Chain 1 6dB , CH MID







9.8.2. 26 dB BANDWIDTH

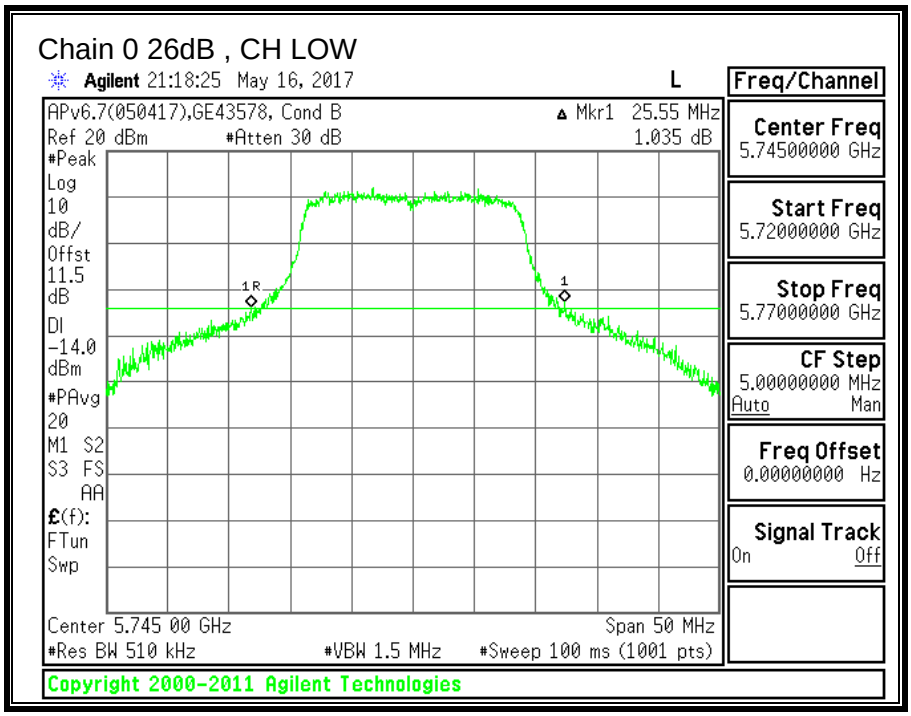
LIMITS

None; for reporting purposes only.

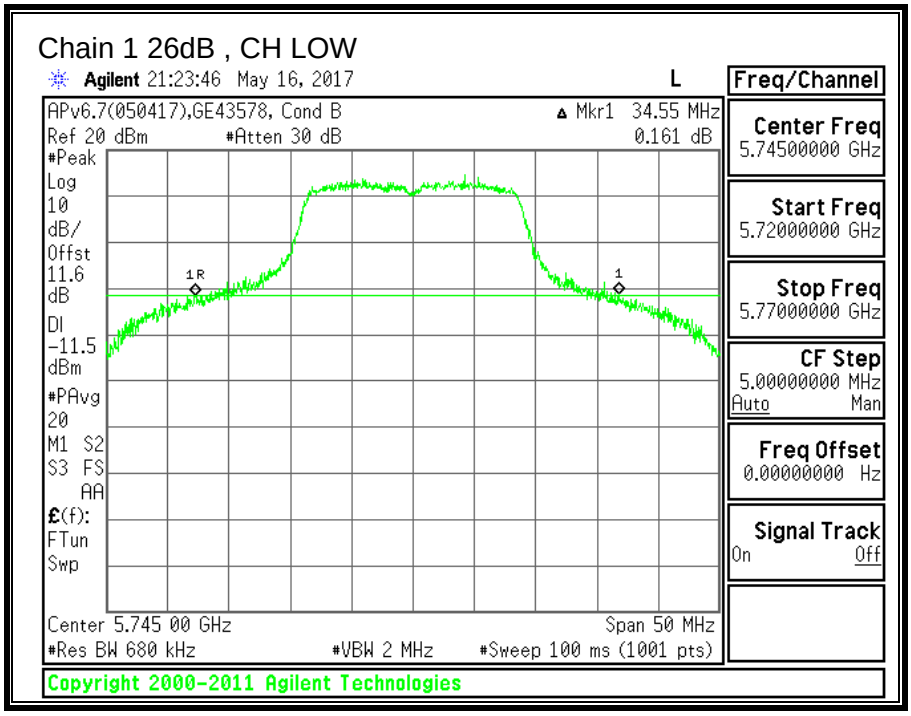
RESULTS

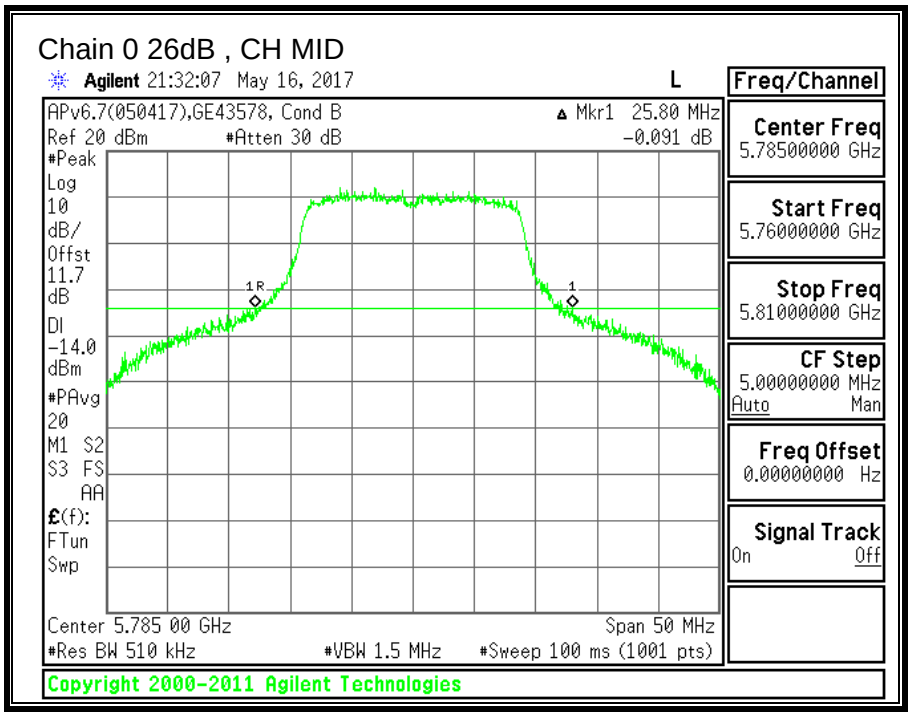
Channel	Frequency	26 dB BW Chain 0 (MHz)	26 dB BW Chain 1 (MHz)
Low	5745	25.55	34.55
Mid	5785	25.80	39.25
High	5825	26.05	39.85

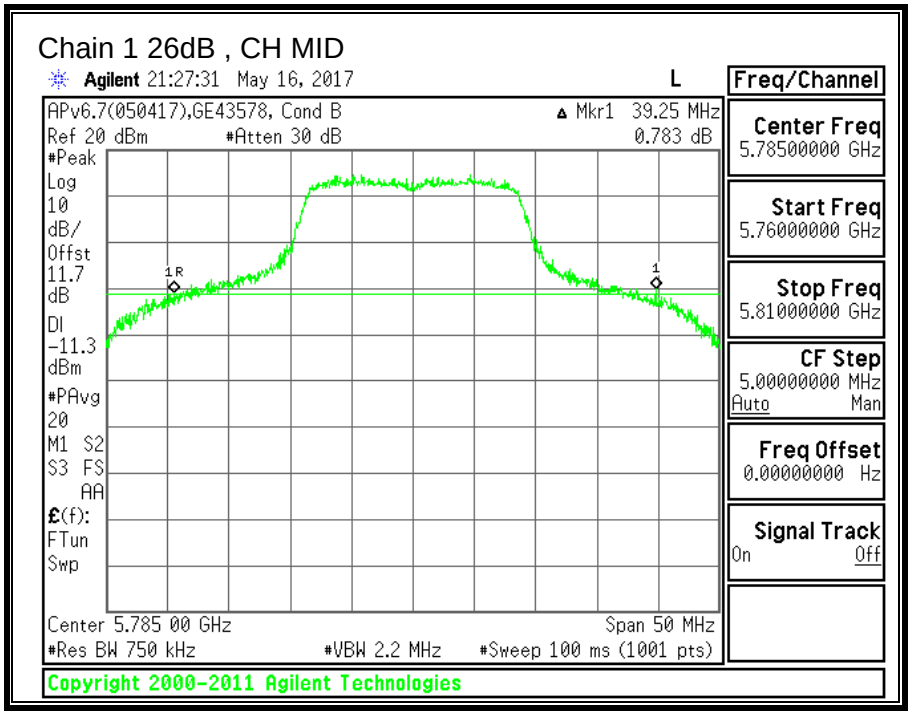
Chain 0 26dB , CH LOW



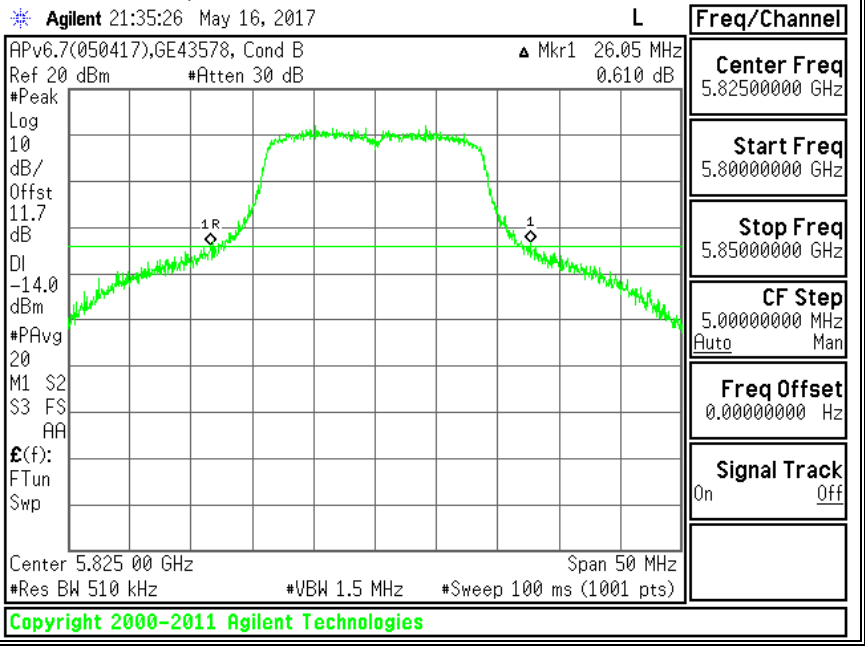
Chain 1 26dB , CH LOW



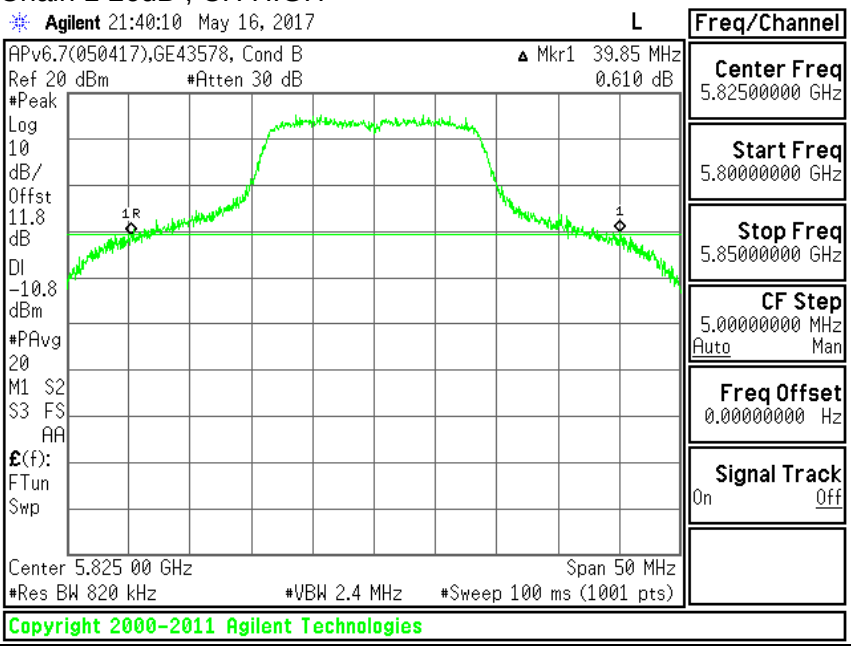




Chain 0 26dB , CH HIGH



Chain 1 26dB , CH HIGH



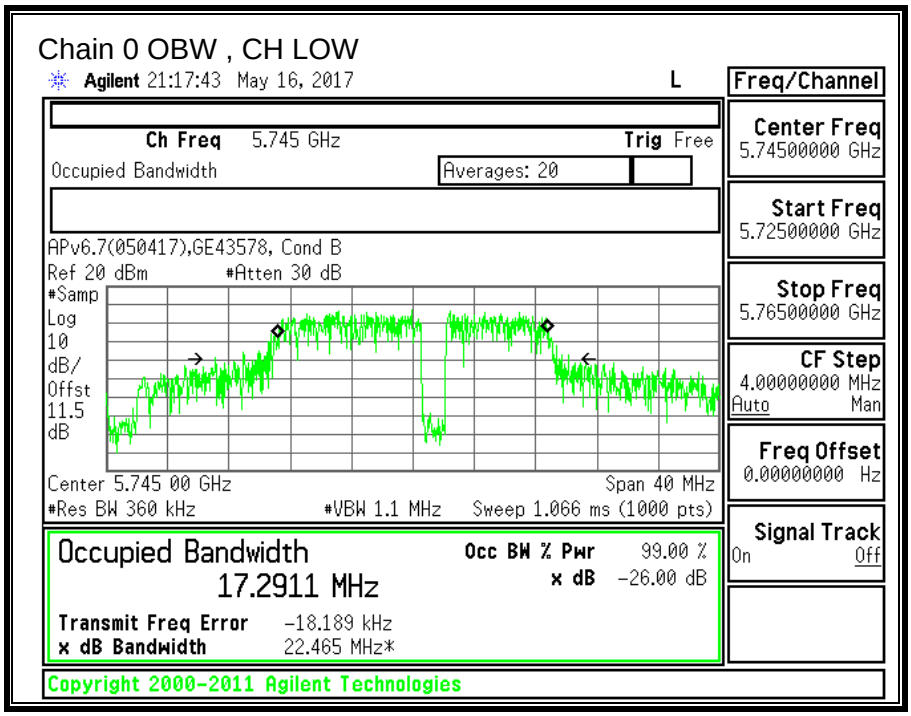
9.8.3. 99% BANDWIDTH

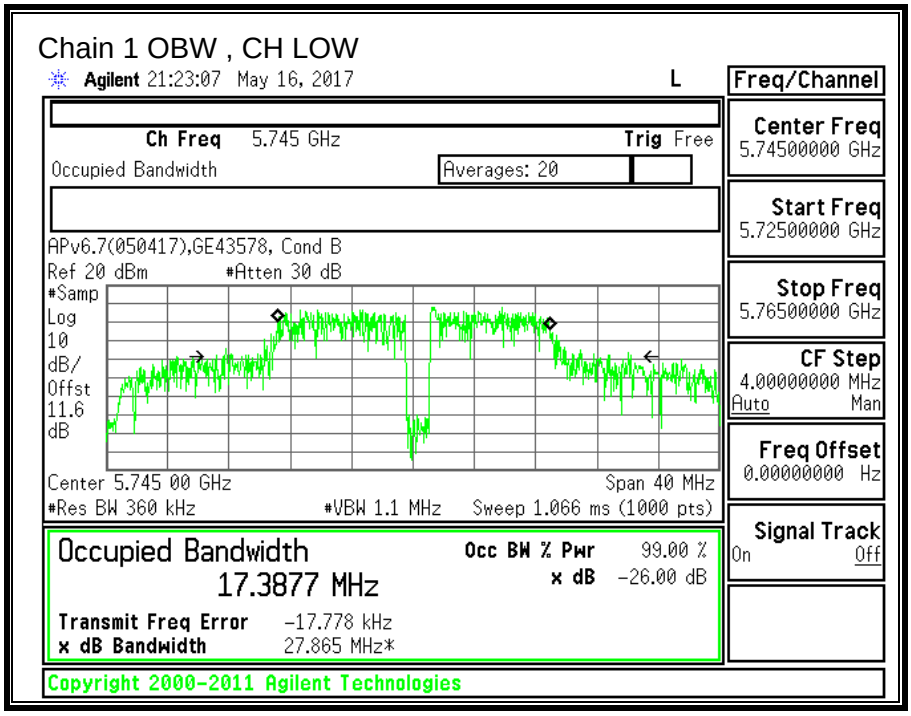
LIMITS

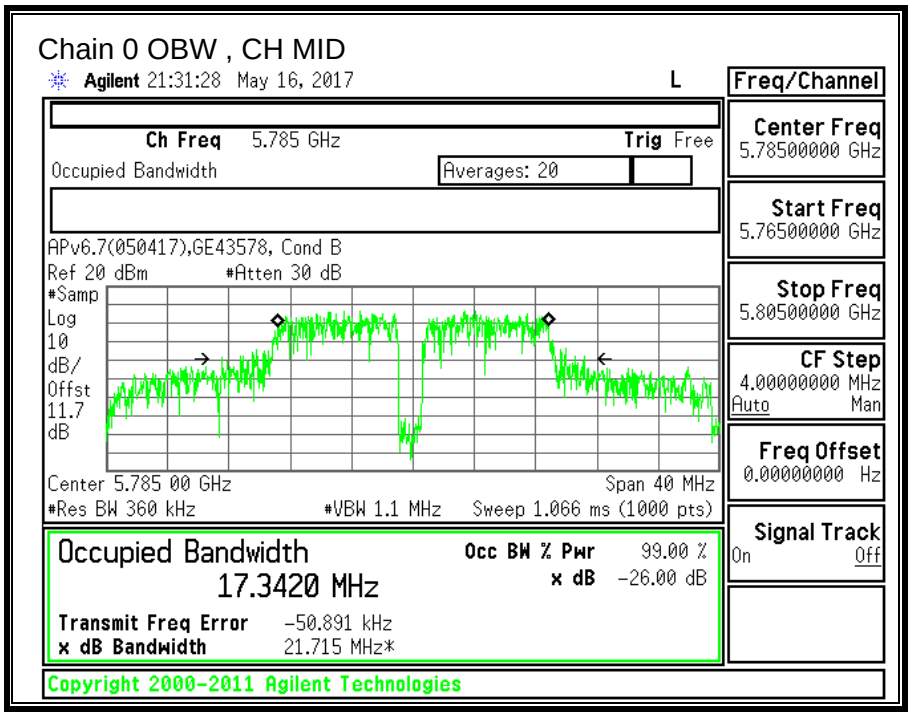
None; for reporting purposes only.

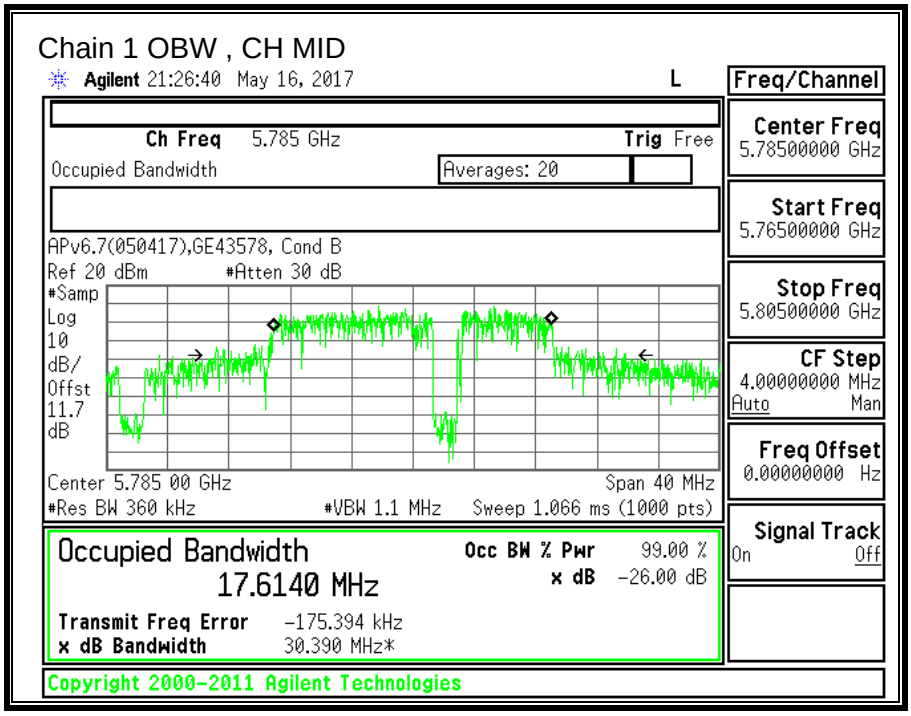
RESULTS

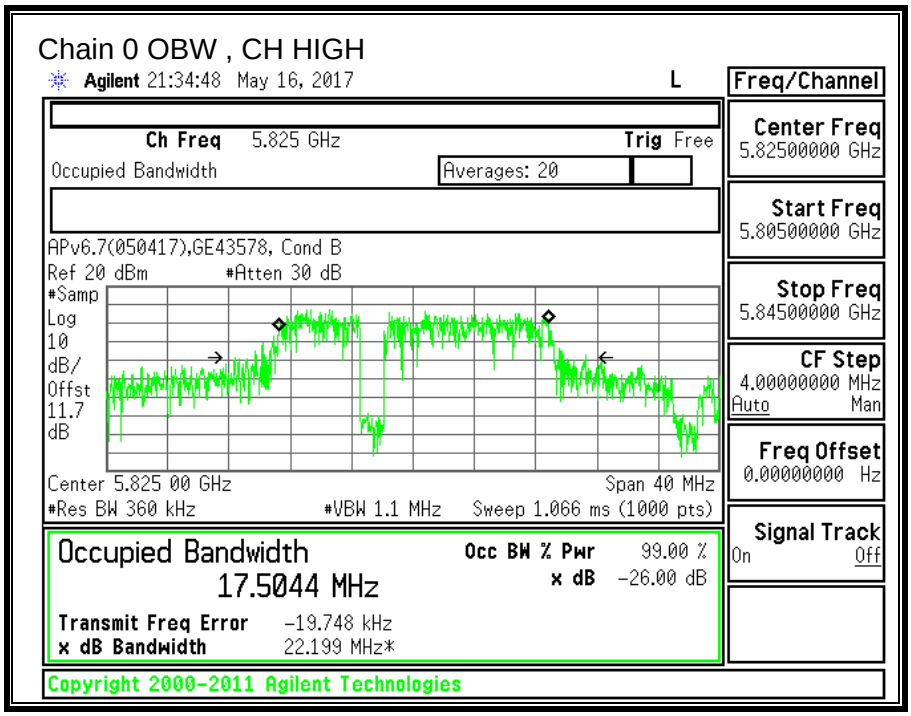
Channel	Frequency	99% BW Chain 0 (MHz)	99% BW Chain 1 (MHz)
Low	5745	17.2911	17.3877
Mid	5785	17.3420	17.6140
High	5825	17.5044	17.5563

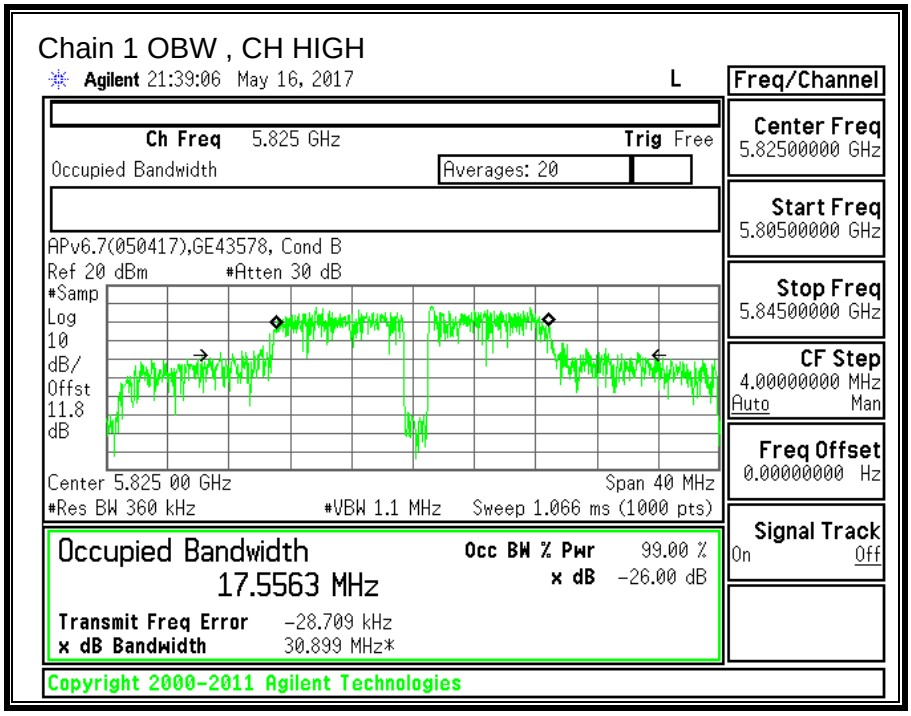












9.8.4. OUTPUT POWER AND PSD

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.

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

For Power, 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)
3.41	2.26	2.87

For PSD, 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)
3.41	2.26	5.86

RESULTS

ID:	GE43574	Date:	5/16/17

Antenna Gain and Limit

Channel	Frequency (MHz)	Directional Gain for Power (dBi)	Directional Gain for PSD (dBi)	Power Limit (dBm)	Power Limit (dBm)
Low	5745	2.87	5.86	30.00	30.00
Mid	5785	2.87	5.86	30.00	30.00
High	5825	2.87	5.86	30.00	30.00

Duty Cycle CF (dB)	0.37	Included in Calculations of Corr'd PSD

Output Power Results

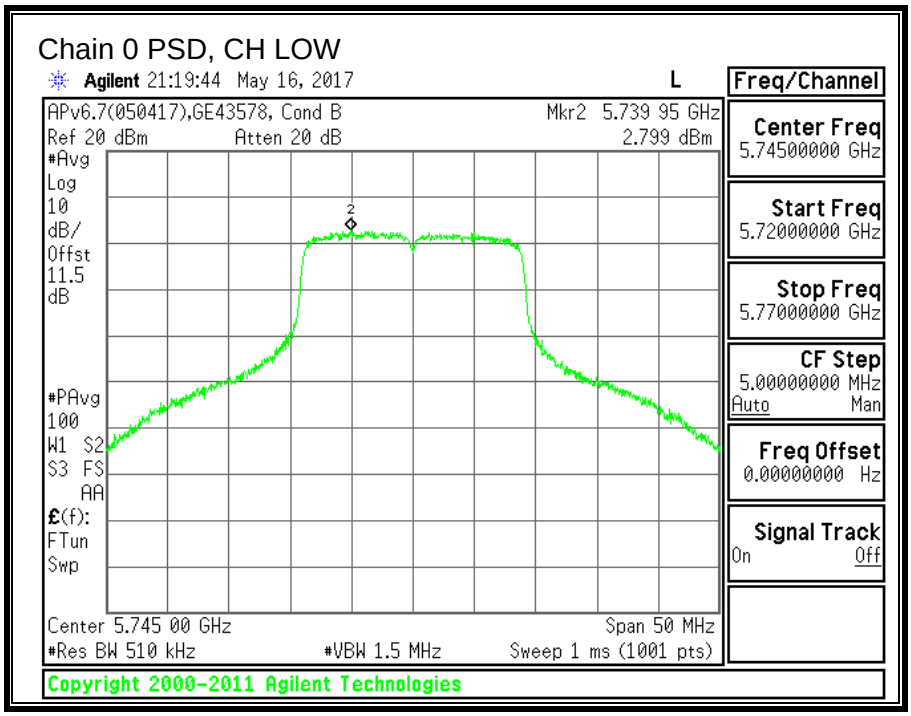
Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Chain 1 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Power Margin (dB)
Low	5745	17.17	18.22	20.74	30.00	-9.26
Mid	5785	17.02	18.53	20.85	30.00	-9.15
High	5825	16.87	18.72	20.90	30.00	-9.10

PSD Results

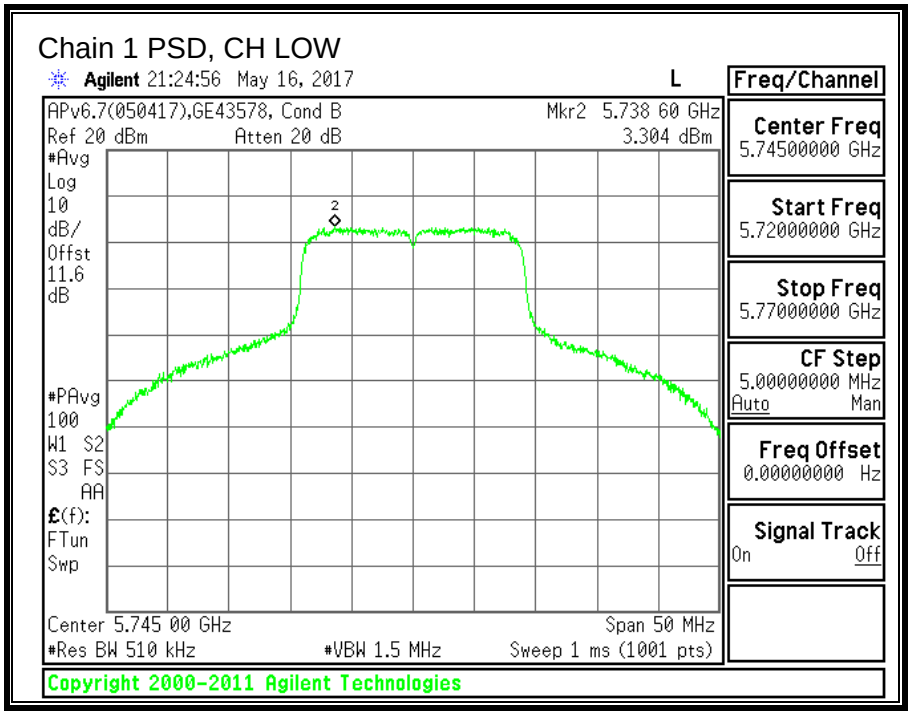
Channel	Frequency (MHz)	Chain 0 Meas PSD (dBm)	Chain 1 Meas PSD (dBm)	Total Corr'd PSD (dBm)	PSD Limit (dBm)	PSD Margin (dB)
Low	5745	2.799	3.304	6.44	30.00	-23.56
Mid	5785	2.506	3.686	6.52	30.00	-23.48
High	5825	2.603	3.878	6.67	30.00	-23.33

Note: the power readings above were measured with gated method, and the measurement was taken only during the ON time. No duty cycle correction was necessary.

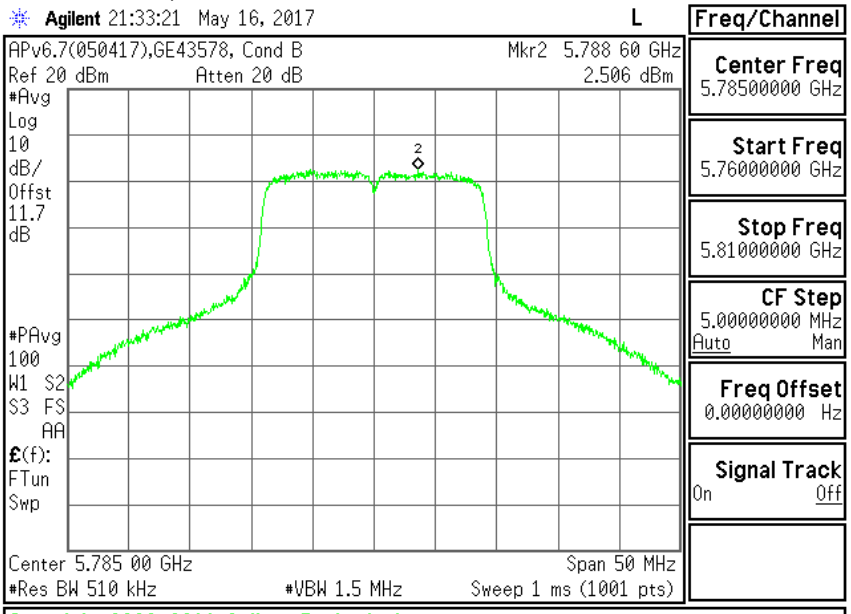
Chain 0 PSD, CH LOW



Chain 1 PSD, CH LOW



Chain 0 PSD, CH MID



Chain 1 PSD, CH MID